

VOL. XIV. No. 10.

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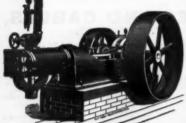


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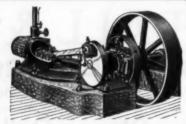
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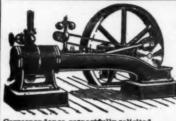
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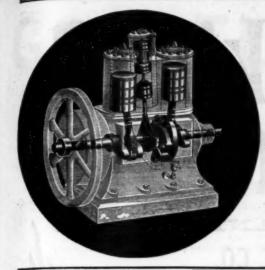
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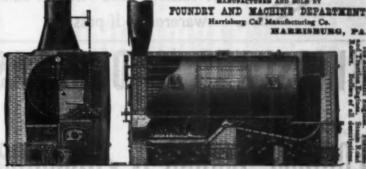
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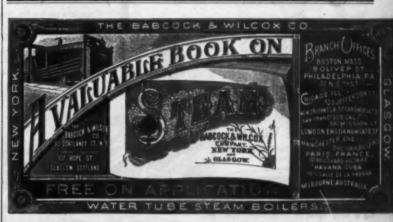
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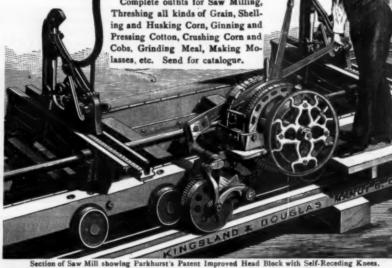
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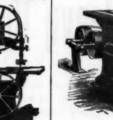


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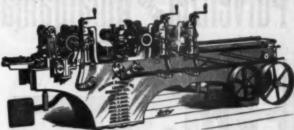






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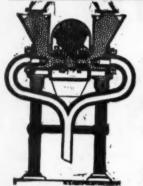
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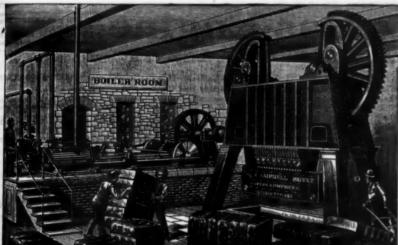
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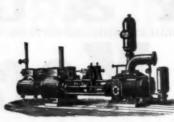
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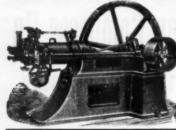
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Working Without Boiler, Steam, Coal, Ashes or Attendance.

Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases. Guaranteed to Consume 25 to 75 Per Cent. less Gas than any other Gas Engine Boing the same Work.

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Automatic Sprinklers, Rabbeth, Sherman, Spindles, Roving Frames, Whitin, Sawyer, Spinates, Double Adjustable Spinning Rings, Twisters, Spoolers, Reels,

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Slasher \ Warpers, Chain Creels and Beams, Warper Reeds and Combs,
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Special Milled Work of all kinds, etc., etc.

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Shuttle Guards, Durkin's For Spindles, Temples and all ck and Thin Place Preventer, our Machinery furnished at short notice.

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Manufacturers' Record.

MANUFACTURERS' RECORD CO.

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SUBSCRIPTION \$4.00 A TRAR.

BALTIMORE, OCTOBER 13, 1888,

IF you contemplate starting a new enterprise of any kind, whether it be a ratiroad, an iron furnace, a rolling mill, a machine shop or foundry electric light, water or gas works, saw mill, planing mill, furniture factory, fertilizer factory, cotton mill, or anything else requiring machinery of any description, send particulars to the MANUFACTURERS' RECORD. A postal card giving character of enterprise and kind of machinery wavied will be all that is needed. It will prove of great benefit to you.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Eastern Kentucky's New Town.

We have repeatedly referred to the great work which the American Association, Limited, an English company, is now doing in Eastern Kentucky and Tennessee. Mr. A. A. Arthur, the manager, has for several years been living in Knoxville and quietly carrying out the plans of this company, which promise to result in the founding of a most important industrial city. Many of the leading iron and steel makers of England are among the stockholders of this company, and the vast properties which they now own were secured only after the most rigid investigation as to their mineral and timber resources. Immense sums of money have already been spent, and it is stated this company will either invest or secure for investment fully \$10,000,000 in the building of a new town to be known as Middlesborough. Five leading railroads, it is said, will center there. The mineral wealth tributary to the place is probably hardly surpassed anywhere in the world. The town site is in that wonderfully rich country-Eastern Kentucky-about whose vast stores of minerals and timbers so much has been said, and the work which has already been done insures a great future for this new town.

One of the finest trade issues ever published in the South is the special just issued by the Tribune, of Rome, Ga. It is a credit not only to Rome, but to the whole State, and the Tribune deserves the highest measure of praise for this splendid piece of work.

How Little One Savannah Paper Knows.

The Times, of Savannah, attempts the role of critic and tries to show that the MANUFACTURERS' RECORD has committed an almost unpardonable sin by an alleged mistake in reporting the organization of a new railroad company. A few weeks ago the following item appeared in the Construction Department of the MANUFACTURERS' RECORD:

"Savannah—Railroad.—Herman Myers, John L. Hammond, Thomas F. Stubbs, William S. Tison, John Lawton and J. F. Minis have incorporated the South-Bound Railroad Co. to build a railroad from Savannah to the Florida State line."

The Times, after waiting a few weeks, speaks of the MANUFACTUR-ERS' RECORD'S "gifted fancy," and comments upon this as follows:

"We do not blame the MANUFACTURERS' RECORD for its error. It lays the road in the direction indicated by its title, and it was quite certain that the Florida State line runs somewhere south of us. But what the MANUFACTURERS' RECORD did not know is that the South-bound road is so named becouse it runs north. The Romans used to say that a grove was called a light (Incus) because it was dark. The MANUFACTURERS' RECORD evidently fails to understand this lucus a non-lucendo treatment of a subject.

No; the South-Bound will run towards Columbia, S. C., and it is an undertaking which promises great things for this city, if pushed through, and there is no reason to doubt that the enterprise will be successfully established on a firm basis."

Had the editor of the Times taken the trouble to read the official advertisement of the proposed incorporation of this road, signed by all of the incorporators, he would have seen the following, (italics ours):

"That the object and purpose of said company are to construct, maintain and operate a railroad for public use, in the conveyance of persons and property, from a point in Effingham county, Georgia, at or near Sister's Ferry, on the Savannah river to a point on the Florida line in Camden county, Georgia, on the St. Mary's river, and through the counties of Effingham, Chatham, Bryan, Liberty, McIntosh, Wayne, Glynn and Camden, in the State of Georgia. The office and principal place of business of said company shall be in the city of Savannah, Georgia."

It is here, just as we stated, "to build a railroad from Savannah to the Florida State Line." Possibly the brilliant critic who tried to be so funny without even knowing of matters in his own city, will now do the MANUFACTURERS' RECORD the justice to admit that he was the one in error.

THOSE contemplating advertising would do well to read the following letter, which is the second unsolicited commendatory letter received from this concern recently:

NEW YORK, N. Y., Oct. 5, 1888, Editor Manufacturer' Record:

Since our letter to you July 26th we have been agreeably surprised at the large increase in the number of inquiries received from the territory covered by your journal. We also peruse your "Construction" columns carefully, and find them very valuable for their "advance information."

SCHENCK BELT-HOLDER & SHIPTER CO.

Southern Fibres.

The interesting letter of Mr. William Lattimer, president of the Acme Fibre Company, of Wilmington, N. C., which appeared two weeks since in the MANUFACTURERS' RECORD, has elicited many inquiries, besides calling attention to a class of natural resources of the South that have received no attention at all as compared with their intrinsic value. The fibres of Southern vegetation are many and varied. At the Atlanta Exposition of 1881 Florida's commissioner made an exhibit that attracted much attention for the time being, and there it ended, because probably no one had the enterprise or the necessary knowledge to make practical use of the lessons then conveyed. It was apparent to all familiar with vegetable fibres and their uses that the various exhibits in that department of Florida's extensive and most attractive display were indicative of the abundance of fibre producing indigenous and cultivated plants in that State, and in the sea and gulf shore counties of the South. At that time the straw of the long-leaf pine was not utilized. But later an ingenious inventor (who he was we do not know) brought to perfection a process for extracting the essential oil of pine needles, and of separating their pulp from their fibres. leaving a large residue of the latter of sufficient strength and elasticity to be used advantageously for all the purposes that hair and curled moss are by upholsterers. Later the Acme Company made a matting for halls and offices from this fibre, and succeeded in obtaining a large demand for it wherever introduced. It was at first a coarse open-work affair, but careful experimenting and liberal expenditures for skilled labor resulted. as such efforts generally do, in marked improvements, until finally a fibre was produced that in colors and texture compared fairly with many older mattings, while in durability and economical cost it surpassed similar fabrics made of other materials. The Acme Company had made this much progress towards the creation of an immense business, when recently the plans of the "jute trust" were revealed. Instantly it turned its attention to weaving from the same cheap fibre a bagging that should answer all the purposes of jute, and its efforts were successful, as the certificates attached to Mr. Lattimer's letter fully attest. There is now no question but that pine fibre sacking will in time be supplied in quantities sufficient to meet all demands.

The Manufacturers' Record once again makes note of this enterprise, not only as a creditable instance of what Southern ingenuity and enterprise can do, but also to attract attention to other fibres that may be converted to use with great profit to those who have the capital and as much enterprise and pluck as Mr. Lattimer has displayed. Take the cotton stalk for instance. In 1883 strips, and these were woven on old style hand looms, and the fabric thus obtained was cut into pieces of suffactors, then shaped and trimmed. Bonnets thus made were longer than those they had been accustomed to buy. Later they took the longest pine needles, dried them brown, and these were woven on old style hand looms, and the fabric thus obtained was cut into pieces of suffactors. Bonnets thus made were longer than those they had been accustomed to buy. Later they took the longest pine needles, dried them brown, and these were woven on old style hand looms, and the fabric thus obtained was cut into pieces of suffactors. Bonnets thus made were longer than those they had been accustomed to buy. Later they took the longest pine needles, dried them brown, and these were woven on old style hand looms, and the fabric thus obtained was cut into pieces of suffactors.

the writer was shown long, strong, white and very beautiful fibres made from this stalk. A quantity of specimens were sent to Hon. Edward Atkinson, of Boston, an authority on textile materials second to none. That gentlemen examined them carefully, and after testing them to his satisfaction, and learning how they were obtained, gave it as his matured opinion that the time would soon come when cotton stalks would be of greater relative value to the lint than was rve straw in the vicinity of strawboard factories to the grain threshed from it. We have recently seen fibres from cotton stalks obtained by a new process that confirm the opinions held by that distinguished and eminently practical gentleman. The American Fibre Company, of New York, which owns this process, is now experimenting on this and on all other classes of Southern fibre-containing plants. It is also seeking the co operation of the agricultural departments of the several Southern States, and asking them to procure and ship to them, in lots of 200 pounds and upwards, specimens of all fibrous vegetation within their respective territories, the company agreeing to test them without charge and to report the results. Learning of this the MANUFACTURERS' REC-ORD detailed one of its staff to watch these experiments and report their outcome. His preliminary statement says in substance that while the American Fibre Company is not yet quite ready for practical work, it has advanced far enough to satisfy the most incredulous that its methods are economical, while the results it has reached prove that it will soon have perfected all matters of lesser detail in its machinery, and be ready to teach the South how to utilize a great variety of raw materials now valueless. Palm leaves, banana stalks, bear grass, marsh reeds and a multitude of vegetable growths indigenous in the South will then have commercial value, and the conversion of them into textile fibres or into paper pulp will give new fields of employment to capital and labor.

A Georgia lady, who, during the war, saw much of the ingenious devices of her fair countrywomen, tells how they made use of many things that grew around them to take the place of those they had been accus tomed to purchase. Among other industries was the manufacture of shaker bonnets for school girls. To make these they gathered palm leaves and bleached them in the sun. The negro children split them into narrow strips, and these were woven on old style hand looms, and the fabric thus obtained was cut into pieces of suitable size, then shaped and trimmed, Bonnets thus made were longer than those they had been accustomed to buy. Later they took the longest pine needles, dried them brown, and then wove them, and used this mate-

XUM.

thus practically tested, and the wonder is that those lessons of experience born of necessity have not resulted in the utilization of both these fibres long before now. In those days also excellent floor mattings were woven of broom sedge and of the fibres of bear grass. The latter was buried until the pulpy part was rotted, and then it was exhumed and anchored in swift-flowing streams, which washed away all decayed matter and left the long white fibres for use. These were dyed various colors and then woven. Every one who has ever tried to break strands of bear grass used for suspending meat in Southern smokehouses, knows how tough they are. As this peculiar plant, when once rooted, never dies, but renews its leaves annually, and as it flourishes on poor sandy land, and abounds in all parts of the South, it would seem to be one of the most valuable of all her natural products, and to be a promising article for experiments preparatory to utilization. Many other natural products might be mentioned in this connection, but the foregoing are enough to show that the South is rich in natural fibres that may be made foundations for numerous industries. It may be that among them ingenious investigators may find some superior to either jute or ramie, or to the many grasses now imported from distant parts of the globe for manufacturing purposes. There is unquestionably enough known to encourage practical men to give time and thought to the investigation of Southern fibres.

THE agitation of the adulterated lard business through the recent Congressional investigation has resulted in the organization of a company in New York to manufacture a lard or cooking fat composed entirely of the highest grades of cotton seed oil and pure beef fat. If this company-The Cotton Oil Product Co. carry out their promises of producing a lard of this character, there is no doubt but what it will grow in public faror and become a leading article of trade. The development of such an industry would prove of great benefit to the South and would largely increase the demand for cotton seed. The manufacture of cotton seed oil is rapidly growing, and many new mills are being built, but the business will develop to still greater proportions if cotton-seed oil should become an important substitute for hog lard.

H. K. PORTER & Co., Pittsburgh, Pa., builders of light locomotives, noiseless steam motors, &c., write us under date of October 6th: "We are very much pleased with your paper, as both readers and advertisers." This concern are very large builders of locomotives, and advertise in the MANUFACTURERS' RECORD that they may increase their trade with the Southern States. So far they have found that the MANUFACTURERS' RECORD reaches the trade they de-

MIDDLESBOROUGH, KY.

Nature's Storehouse.

One of the Coming Industrial Centers of the South.

Projected by the American Assosociation (Limited), of London, England,

Situated in the Great Yellow Creek Valley of Bell County, Ky.

Special correspondence MANUPACTURERS' RECORD.] CHMBERLAND MOUNTAINS, Oct. 1, 1888.

The South's greatest interest now is in her internal commerce and internal development, as well as in her search into the bowels of the earth for the minerals long awaiting the coming of capital and energy. There must be more building in the line of manufactories, the converting of the raw materials into shape and use, while the farmer must grow such food products as are essential to the development of a higher and better class of civilization.

Much time, effort and capital have already been expended in the opening up of commercial and industrial centers during the oast five years throughout the South, and in nearly all these ventures in the way of developments success has attended the efforts put forth, while the capital invested has yielded handsome return

There has been no place in the South opened up in material wealth and development under more favorable auspices than the new and enterprising town of

MIDDLESBOROUGH, KY...

situated in Bell county, Eastern Kentucky, and near the Tennessee and Virginia lines, overlooking nature's great storehouse in and around the fertile Yellow Creek valley. Here at the foothills of the great Cumberland mountains, contiguous to the famous Cumberland Gap, is this coming industrial center, brought into existence by the American Association (Limited), of London, England, of which Mr. Alex. A. Arthur, general manager, has been the moving spirit, and to whom not only the company he so ably represents, but the States of Tennessee and Kentucky, are indebted for much in the way of real and substantial development.

A visit to this coming town of manufactures and commerce revealed much in the way and manner of establishing an indus trial point in the South's onward march of development. Nearby is Cumberland Gap, dominant over-

750,000,000 tons of coking, steam, doestic and cannel coals.

60,000,000 tons red and brown hematite. fossil, Oriskany and carbonate iron ores.

200,000,000 feet of white oak, hickory, poplar, ash and maple.

And untold quantities of manganiferous iron ore, mineral paints, fire and potters' clay, sand and limestone. In very truth, Nature's storehouse.

Overlooking the infant city of

"Middlesborough,"

aituated in the great Yellow Creek valley. With this solid foundation and backbon of wealth, hidden resources and wonderful possibilities, it is only a question of a short while until Middlesborough will loom up as one of the most conspicuous centers of trade and traffic in the South.

As regards the climate this section of the country is pre-eminently noted for good health, pure water and a remarkably elevated altitude, and with these most favorable conditions necessary for the sustenance and maintenance of man there is no reason why this portion of the South should not demand immediate attention from the capitalist and the investor.

Health.-These two counties, Claibourne nd Bell, are, by the statistics of the last census, made to appear the healthiest counties in Kentucky and Tennessee, and particularly salubrious for consumptives nd those suffering from pulmonary complaints. There is no malaria. The winters are short and the summers are long. The temperatures are moderate.

Water.-There is an abundance of pure water, limestone and freestone; also many mineral springs. Yellow creek flows constantly in a steady volume. Water works will be established to supply drinking and domestic water from a reservoir in the mountains.

Altitudes.-Middlesborough valley is 1.400 feet above the sea level, and surrounding hills reach an altitude of from 2,500 to 2,700 feet.

The iron and coal me sures and deposits near this place are abundant and the problem is to bring the material together at convenient places, and in return distribute the product. The American Association (Limited) propose to solve this problem in the most satisfactory manner, and to the credit of their far-seeing ability it should be said that through its resident manager, Mr. Alex. A. Arthur, much of the material and substantial development of the States of Tennessee and Kentucky is but justly due to his intelligent and persistent, efforts

The American Association (Limited), of London, Eng., and the Middlsborough Town Co., the owners of these properties, and the Knoxville, Cumberland Gap & Louisville Railroad, and the Cumberland Gap Tunnel, (with a combined cash capital of \$3.325,000), invite men, money and manufactures to Middlesborough and the coal, iron, clay and timber surrounding it. Middlesborough, fostered by the parent company, will be made to rival Birmingham, and second only to Pittaburgh as a railroad and manufacturing center. Sales of town lands and manufacturing sites 1889, maps, prospectuses, etc. furnished on application to Alex. A. Arthur, general ager, 146 Gay street, Knoxville, Tenn.

Mr. John R. Proctor, the capable and energetic director of the geological survey now being made by order of the State of Kentucky, in speaking of Eastern Kentucky where the town of Middlesborough is situated, savs:

"1. That the largest known area of coking coal in the United States is in Southeastern Kentucky.

2. That the coal is very thick, of uni-

form good quality, and as favorably situated for cheap mining as any coal.

3 That it is the nearest coking coal to the center of population of the United States.

4. That it is nearer to extensive deposits of high grade Bessemer-steel ores than is any other coking coal.

5. That it is near to extensive deposits of cheap iron ore.

6. That there are other valuable coals in this region, including large deposits of superior cannel coal.

Says "Pig Iron" Kelley in an extract from a speech in Congress in relation to Eastern Kentucky, the resources and ad vantages of this portion of the United "That the coal fields of Kentucky exceed in extent and richness those of England as they came from nature. She has two, the Western and Eastern. The former comprises about 4,000 square miles; the latter, the Eastern field, comprises more than 10,000 square miles, and ex tends from the Ohio river to the Tennes see line. Much of the coal of this field is cannel coal of so high a grade that, taking the pronunciation of its name from the illuminating power it discloses while consuming in the grate or on the hearth, many of the people call it 'candle coal; but with this priceless treasure are also vast deposits of the finest quality of coking coal, &c. &c.'

From the following it will readily be seen how very well-timed and judici

have been the plans matured and projected by the American Association (Lin regards the establishment of this new town of Middlesborough. The foundation is substantial and the growth must nece sarily be quick and rapid.

The following industries, propos Mr. Arthur, the general manager of the company, have been submitted for ratifistore the board of directors in London, England. It is more than likely that all the propositions will be entertained and acted upon at once, and that the work in contemplation will begin im. mediately thereafter:

One 80-ton furnace for mill and four. dry pig.

Two 180-ton furnaces for mill and foundry pig.

One 100 ton furnace for charcoal pig (car wheel).

One rolling mill, 100 tons capacity, capital \$250,000. One rail and merchant mill, capital

\$150,000.

One planing mill, capital \$100,000.

Three coke plants, capital \$450,000. Wood working establishments for fancy woods used for decorative purpor \$50,000

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Brick works, \$25,000. Hotel, \$50,000. Newspaper, \$20,000.

Charcoal iron furnace for car wheel iron, \$150,000.

Schoolhouses, \$10,000.

Churches, \$10,000.

Wood-working establishments, which will insure a business from \$1,000,000 to \$1,500,000 yearly.

With the establishment of these industries, it remains a question of but a little while before this place will become an industrial center of 50,000 to 75,000 people.

During the past three months com able work has already been accomplished. The streets are being graded and shade trees planted, handsome stores are building and sanitary arrangements being perfected. Added to this, five trunk lin now under contract to make Middles-borough a terminus. There is every indication that this place will be no laggard in the race for industrial suprems

The following trunk lines will of themselves make this place a center of trade and traffic, even though the natural resources should be left out entirely in the growth and development of the place. The lines now under contract are the following:

A line from the Mississippi river

A line from the Atlantic coast (air line). L. & N. from the Ohio river.

Norfolk & Western from the valleys and coast of Virginia.

Charleston, Cumberland Gap & Chicago Railroad for the Lakes and the Northwest.

It is no longer a question that the coun try south of the Potomac and the Ohio is now the objective employment of this country's energies. It is in these respective sections that the tide of capital, immigration and skilled labor must come. The minera's are here in inexhaustive quantity. The timber can be had in endless variety and quantity. The arable lands are found in valleys, which, like basins, have gathered the detritus of the mountains for ages. The soil is, therefore, very deep and strong, yielding much more than the same area in the East. Two crops a year from the yleiding much more than the same area in the East. Two crops a year from the same soil are very common, so that this land is equal to twice or three times the same area in the East.

same area in the East.

With all these natural resources and advantages found in and around Middlesborough, and backed up by capital, energy and brains, it is only, therefore, a question of a few years when Middlesborough will assume a position second to no other manufacturing citv in the South, and in many respects will rival her namesake, which for many years has been the manufacturing center and shipping port of goods known to the four quarters of the globe.

Hinton Helpes.

Bristol's Bright Future.

Developments in Southwest Virginia,

[Special correspondence MANUFACTURERS' RECORD.]
BRISTOL, TENN., October 5, 1888.

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That push and energy, when backed up by great natural advantages, are bound to receive recognition and support, has never been more fully exemplified than in the recent history of this border town.

A few years ago Bristol was only known as the junction point of the Norfolk & Western and East Tennessee, Virginia & Georgia Railroads. It was a typical Southern town, remarkable chiefly for the fact that it lay in two States and boasted two municipal governments.

To-day it is still a type, but a type of the more progressive spirit of the New South, which finds its expression in building great manufacturing towns and developing the wonderful resources hitherto unknown or manufacturing towns.

It dates its awakening from the beginning of work on the South Atlantic & Ohio Railroad. This road, the value of which is fully set forth in Prof. Proctor's report quoted below, owes its existence to the foresight and energy of Dr. John M. Bailey, formerly of Massachusetts, and a gentleman who has been long and prominently identified with milroad building in the South.

Recognising the importance of Bristol as a center where could be brought together the various components that enter into the manufacture of iron and steel, and realizing the necessity of railroad facilities for their transportation, Dr. Bailey set about the accomplishment of this end.

Securing a partial promise of support from Eastern capitalists, he acquired a charter granted by the legislature of Virginia, hired a force of hands, and on his own personal account commenced the work of construction. After two months of individual work the Bailey Construction Co. was formed, principally of Boston men, with Dr. Bailey as president, and under his management the company pushed the road forward to a point beyond Estillville, when it was sold to the Virginia, Tennessee & Carolina Steel & Iron Co., from whom it has just been purchased, as will be seen by the following clipping from the Railroad Gazette of September 28:

South Atlantic & Ohio.-The control of this road, which extends from Bristol, Tenn. northwest about 40 miles, and which is to be extended to Big Stone Gap, on the line between Virginia and Kentucky, has passed into the hands of Dr. J. M. Bailey, president of the Bailey Construction Co., who has bought all the stock and bonds. Dr. Bailey also bought about 30,000 acres of min eral and coal lands lying contiguous to the line of the proposed extension, together with 1,000 acres of town lots in Bristol Tenn., and a similar quantity in Elizabeth ton, about 20 miles south on the Watauga river, in the magnetic ore regions. Th purchases aggregate \$1,200,000, and Dr Bailey has also bought out the interests of the Virginia, Tennessee & Carolina Steel & Iron Co. In this region the money has been provided for the building of the road to Big Stone Gap. Bonds of the road are now for sale. The Louisville & Nashville is to extend its Cumberland Valley branch from Pineville to Big Stone Gap, where connec tion will be made with this road.

Arrangements are completed for the erection of a large furnace, with 160 tons daily capacity, at Bristol, for producing Bessemer steel. The plan proposes two furnaces of that size and a rolling mill.

State Geologist Proctor, of Kentucky, in a report on the iron and coal fields along the line of this road, makes enthusiastic statements concerning their value. In the region of Big Stone Gap there are large fields of superior coking coal. These fields are the nearest of any to the large deposits

of high-grade Bessemer steel ores in East e and Western North Carolina and this road will be the shortest route fro the coke to the ore fields. Immense de posits of red fossil ore run contiguous to the road for a distance of 14 miles. Analyses show that it will yield from 45 to 50 pe cent, metallic iron, and it can be mined at from 50 cents to \$1 per ton. There are a er of other large fields. The Norfoll & Western branch into the Cripple Creek region developed a large traffic in minerals in five years, and it is believed this region will be equally prosperous. The country tiful variegated marbles. Investments have already been made in this region by iron and steel manufacturers of Pennsylvania."

The effect produced upon Bristol by the enterprise and push of this indefatigable builder has been most marked. business interests have been created, the population has materially increased, hotels dwellings, stores and manufactories are nearing completion on every side, and we now take rank as one of the most prosperou and thriving towns of this section. A horse railroad is running through the main street and rails are on the ground for its extension electric lights illuminate the streets, store and offices; water works are being con structed, and manufacturing has received the needed impetus. A large car and ca wheel works is in the course of construction which, when completed, will cover about twelve acres and give employment to hun dreds of men

There is not a vacant house or store in the town, and those now under way were rented before the foundations were laid; and yet there is no "boom" in the general acceptation of that term. The growth and development has been steady and solid. There are no fictitious prices, and "boomers" methods have not been resorted to, nor are they necessary.

There is abundance of delightfully situated sites for residence and manufacturing or business purposes, and prices have not arisen out of the reach of an ordinary man's pocket. Ground will shortly be broken for a steel furnace having a capacity of 160 tons per day, and that will be followed by another of similar size and a rolling mill in addition.

The lease of the E. T., V. & G. Railroad, which has its eastern terminus here, to the Richmond & Danville system, will probably be followed by the building of a road from here to Danville, there to connect with the R. & D. The preliminary surveys have been made and a charter secured by Dr. Bailey.

The following report by Prof. John R. Proctor, State geologist of Kentucky, will give some idea of the country tributary to Bristol and opened by the South Atlantic & Ohio Railroad:

FRANKFORT, KY., September 17, 1888. Dr. J. B. BAILEY.

Dear Sir—I have made a careful examination of the iron ores and coals along the line of the South Atlantic & Ohio Railway from Bristol to Big Stone Gap, and make the following brief general statement in advance of the more detailed report which I am preparing:

COALS.

Big Stone Gap is one of the few natural passes leading from the South Appalachian coal field to the great coalless area stretching from southwestward to the Atlantic ocean.

Immediately north of the Gap the coal measures have a very great thickness above drainage, and there are a number of thick coals, some of exceptional excellence. One coal has a thickness over a large area immediately tributary to the gap of from six to eight feet of coal, is most advantageously located for cheap mining and a superior coke, having from 93 to 95 per cent. ash, and very low in sulphur. In addition to this very superior coking coal are cannel, splint

and excellent gas coals. In Powell's mountain there is a southern extension of this field where three coals are present; an excellent coke has been made from one of these coals. Your company owns the most valuable portion of this outlaying coal field.

These coals are the more valuable because of the proximity of the iron ores along the line of your road, and because they are the nearest coal to the great deposits of high grade Bessemer steel ores in East Tennessee and Western North Carolina, and they are of especial value to the S. A. & O. Railroad, because that road has secured the shortest and most available route for the bringing together these cokes and steel-making ores.

IRON ORES.

I know of no road of equal length having immediately along the line of the road such a variety and abundance of iron ores.

'red fossil" or Clinton iron ore arallel and immediatly along the line of the railway for a distance of 14 miles. This ore is a reliable stratified ore and three beds are known to be present, one ranging from 30 to 65 feet thick, of excellent soft ore averaging from a large number of analyses from 45 to 54 per cent. of metallic iron; another ranging from 18 to 24 feet thick This ore can be mined at low cost, say from 50 cents to \$1 per ton, and I think it safe to me that you have on the line of the S. A. & O. Railroad 20,000,000 tons of this or that can be put upon the cars at the above This will give a freightage of named rate. 1,000 tons a day for 54 years. Recently a new ore horizon has been developed from Big Stone Gap along the line of the road parallel to the above mentioned, and again along the southern base of Clinch mountain. This is a limonite or "brown" ore, and is a reliable and extensive deposit. It is in the Oriskany of the upper Silurian, I superin tended the openings made in this ore at a number of places along the line of the road enough to convince me that there is a de posit of very fine limonite ore, exceeding in quantity the Clinton or red fossil ore above referred to. At one point where several openings were made I was convinced that along a line of 3,500 feet 780,000 tons of ore can be had above drainage. This ore will yield from 50 to 55 per cent. of iron, and is low in silica and phosphorus. There is enough of this ore immediately along the line of the road to furnish freight sufficient for a long time to pay a large interest upon the cost of the road. At Clifton Forge district, in West Virginia, where this same ore has been developed, the furnaces and indus tries developed by it furnish one-eleventh of all the freight of the Chesaneake & Ohio Railroad, and the ore there is 90 miles from a coking coal.

In addition to the above ores are found near to the line of the road: I. Masses in the Trenton and Knox limestones and shales of the lower Silurian, rich ores, with, in one instance, low enough phosphorus for Bessemer pig. 2. Pockets of ore in Medina sandstone near top of Clinch mountain. 3. Stratified ore two feet thick in Chemung shales. Immediately beyond (southeast) Bristol, and only from two to seven miles distant, are large deposits of semi-magnetic ores, with from 55 to 60 per cent. iron and very low in phosphorus. I will not dwell here on the immense deposits of limonite ores on the waters of the Watauga, and the specular and magnetic ores, nor on the large deposits of manganese, although these great deposits must in large measure be smelted by the coke from Big Stone Gap and Stock Creek, and thus furnish an immense freightage to the S. A. & O. Railroad.

The Norfolk & Western extended a branch road to the Cripple Creek ores on the south and to the coal on the north, and developed a mineral freightage of 48,311 tons in 1882 to 1,417,549 tons in 1887.

The S. A. & O. will penetrate a coal field capable tain names of the best hou could find the superior, and passes through deposits of ore more abundant and superior chinery and mill supplies.

in quality to anything yet reached by the N. & W., and there is no reason why the freightage of the S. A. & O. may not be developed to the utmost capacity of the read.

Timber abounds along the line of the road, and at the crossing of the Holston, Clinch and Powell rivers a great traffic in lumber will be developed.

The beautiful variegated marbles on the

The beautiful variegated marbles on the line of the road will bear transportation to all pasts of the United States.

The road crosses in succession a number of fertile valleys, with already a well developed agriculture.

I wish to call attention to the great advantage possessed by your road in the manner in which it secures great natural passes through the mountains. There are seven ranges of mountains running northeast and southwest, opposing almost impassable harriers to the construction of railways, except by the route secured by this road.

There is only one water gap in Clinch Mountain, the Big Moccasin Gap, and this road passes through that; (a) it passes through Moccasin Ridge via Troublesome creek; (3) through Copper Ridge at Clinch river; (4) through Purchase Ridge at the Natural tunnel; (5) through Powell's Mount at Wild Cat Gap; (6) around the east end of Wallen's Mount, and (7) through Stone Mount at Big Stone Gap. Thus no road can parallel this line, except at a very great cost.

Some of the most successful manufacturers of iron and steel in Pennsylvania have made large investments along the line of the S. A. & O. R. R., intending to develop their properties as soon as the road reaches the coking coals. This insures a heavy, permanent traffic to the road. The extension of roads now in progress of construction, both to the southeast of Bristol and to the northeast and northwest of Big Stone Gap, will make the S. A. & O. R. R. an important and indispensable link connecting the great Ohio valley with the South Atlantic seaboard.

I know of no road with a greater combination of advantages: coals, iron ores of exceptional excellence and in the greatest abundance, timber and building stone, fertile soils, and the certainty of favorable connections with important railways at both termini.

I believe the local traffic alone will pay a large interest on the cost of the road.

I believe the through traffic to be developed within two years will pay a large interest on the cost of the road.

Respectfully yours,
[Signed] JOHN R. PROCTOR,
State Geologist of Kentucky.

Prof. Proctor says nothing about timber, and fear lest I have already taken too much space forbids me to enlarge on that subject, and I must perforce dismiss it with the brief statement that Bristol is right in the heart of the timber belt, and that manufactures can here find almost every wood known to North America in great profusion and magnificent size and quality.

and magnificent size and quality.

As to climate and healthfulness, there is nothing left to be desired. Situated on a high plateau, 1,600 feet above sea level, Bristol is surrounded by mountains, which not only form an attractive setting for this jewel of towns, but serve also to protect its inhabitants from the coal blasts which the altitude would otherwise subject them to. Here the summers are never too hot nor the winters too cold, malaria and yellow fever are unknown, while comfort and health reign supreme.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURES' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers is avacabinery and mill supplies.

Paradox Ore Concentrator.

The attention of mining men is called to the superior form of the Paradox ore concentrator, shown in the cut. These concentrators are manufactured of the best materials, and present a neat and tasty appearance when complete. They are light in weight and still have sufficient strength to stand the most severe tests. The peculiar movement of this machine, by which is attained the shaking or reciprocating movement, is, it is said, an entirely new one in machines. It is the nearest to the old fashioned hand-pan movement that has been found and pleases every person who has seen one in operation. The motion of

separated from the others to be packed into the mountains or over rough roads. It may also be put together by a novice in two or three hours. The heaviest piece of casting weighs less than 175 pounds, and no part of the machine is made in sections, as other machines are. A complete machine weighs only 1,600 pounds, but boxed, with timbers, etc., it weighs about 2,500

The manufacturers claims for this ma chine the most perfect uniformity and steadiness of motion, the most satisfactory practical operation, the greatest ease in adjustment, the minimum amount of power to treat the maximum amount of pulp, the largest amount of net bullion value accru

any building by the fan attached to the apparatus, which delivers a strong and voluminous current of air under any and all circumstances.

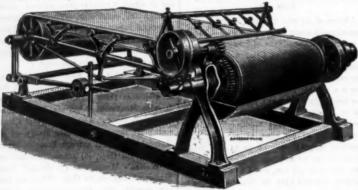
The fan handles the cold air, pushing it through the heater crosswise of the pipes, instead of drawing the air through, as is the case with other hot blast apparatus, in which the fan agitates and cools the air after it has been passed through the heater.

The Smith hot blast heater is so constructed that all the steam taken into it must pass through the heater pipes; thus no steam or heat is wasted, as all the condensation, even, runs ahead of the steam, and the latent heat contained therein is

The Glen Cove Double Decker

The machine presented herewith is one of entirely original and novel construction, It has been carefully designed to meet a growing requirement of the lumber dress ing industry. Its object is to do a large quantity of work in the most superior manner

As will be seen, the machine is a double one, or, as we call it, a double decker. There are two feed ways—one directly over the other, two sets of feed rolls (one set of six rolls for each feed way), two upper and two lower cylinders, (the two lower cylinders may be omitted if only single surfacing and matching is required.)



PARADOX ORE CONCENTRATOR

the belt can be varied at will by a simple | ing from the gross yield of concentrations adjustment on one side. The large belt is of rubber and the most perfect of its kind that can be made.

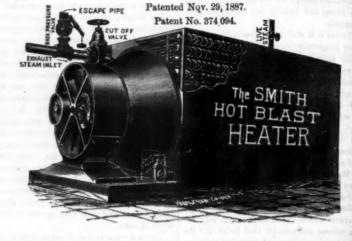
The machine has an end motion, with a drop at every revolution. It has no side motion, and its mechanism is such that its action is positive, direct and self-contained, not relying on the assistance of hang rods, cranks, springs, weights, etc. Such construction contribut a largely to the simplicity, durability and staying qualities which the Paradox possesses. One mawhich the Paradox possesses. chine will concentrate from four to ten tons

and amalgams, and the least loss of value in the tailings.

For further information and prices ad dress Geo. M. Gross, manager, 2117 State street, Chicago, Ill.

The Smith Hot Blast Apparatus.

The accompanying cut illustrates the Smith hot blast steam heating apparatus as used for all manner of heating pur poses. Steam heating, by indirect radia-

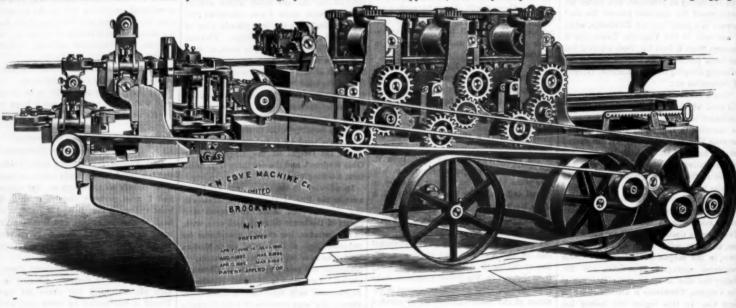


The Smith heater is made entirely of wrought and malleable iron, is self draining, anti-freezing, and never, it is claimed, springs a leak, as the pipes are so arranged that contraction and expansion does not affect the joints.

With the Smith apparatus exhaust steam may be utilized in heating factories, cotton or woolen mills, warehouses, etc.

The Huyett & Smith Manufacturing Co., of Detroit, Mich., who manufacture the above apparatus, make a specialty of hot and two side spindles, each of them carrying two matcher heads one above the other. Everything is compact and simple, strong and durable. The cylinders are short and stiff, with long bearings that run cool and steady.

Either deck may be run independently of the other; that is to say, either the upper or the lower one may be in use while the other one is standing still, or both may be run together, giving, with a moderate feed on each, a large aggregate



TER GLEN COVE DOUBLE DECKER.

of ore in 24 hours, according to the kind of ore to be treated. About one horse-power will run one machine successfully. This machine, it is claimed, will save from 70 to 80 per cent, of the value of the mineral, and it has been known to save 90 per cent. About 1,500 gallons of water are required every 24 hours. Its simplicity, ease of adjustments in raising and lowering the main belt while in motion, regulating the speed of, and ease of tightening and loosen ing same, and the absence of so many belts, pulleys, shafts and mitre wheels, are sub jects well worthy of attention.

The machine, when set up, measured 8x12 feet, and each piece may be easily

tion for large public buildings, is known by all expert engineers and architects to be far superior to any other system of heating, it being far more healthful, economical, clean, compact and less fire risk than any other. The principal or serious objection raised against former indirect systems of heating has been that the circulation of the heated air could not be maintained alike throughout the various rooms and areas unless each room or area was provided with ventilating or draft flues, and even then the circulation could not always be depended upon. But this objection is entirely overcome by the use of this apparatus, as the hot air is forced to all parts of

blast outfits for drying lumber, wool, textiles, knit goods, fruits, tobacco, glue, skins, grain, brick, etc., and are prepared to furnish plans and estimates on all such class of work. They especially solicit correspondence from the South.

THE question how long man has lived in America, and what were the surroundings of the primeval inhabitant, will be discussed in an illustrated article, entitled "Palæolithic Man in America," by W. J. McGee, in the November Popular Science Monthly. The author is thoroughly acquainted with the evidence on this subject, and has the happy faculty of presenting it in an attractive style. output of perfectly dressed and matched lumber. Each division of the machine is complete in itself and capable of running at as high a speed as any single machine and do as good or better work.

The main object, however, is to secure the advantages of a moderate feed, which prevents splintering or tearing out of knots, and insures first class surfacing and matching, while the amount of lumber passing through the machine may be very

Every mill man can appreciate the great difference in market value between smoothly dressed and well-matched flour-ing and that which is roughly dressed and on surfi Veni A steel cutte

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poorly matched. If, then, that of the first de can be turned out as rapidly as that of the second and third quality usually is, and without any extra expense whater here can be no doubt of the utility of the machine that can do it.

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The double decker works lumber up to ten inches wide, and takes up no n room than a single machine of that width. It requires no more belts and no more pulleys than a single machine and no greater expense for attendance.

It has but two side spindles, each one carrying two heads, one immediately above the other, and when it is desired to change the side heads to a different width of lumber, only one side spindle has to be moved to set the two heads. When one is set the other is set too, and both exactly alike. It will thus be seen that valuable time and much trouble is saved, as it takes no longer to set this machine than it does to set the best single board machines in the market.

The patented gripping device for holding the side spindle frames firmly in place afer being set, and the patent weighted "Paragon" Self-Feed Rip Saw.

This is a new hand-power machine de wood workers who desire to do ripping, grooving etc. It is a strong, substantial and thoroughly well-built machine of large capacity, taking work (of any width) up to 3½ inches thick. It has two changes of speed and can be driven from either side of the machine, as desired. It has ad justable feed which is self-adjusting for allordinary work and is positive in its action. the power being transmitted from the driving shaft by gears. The feed has three changes of speed (fast, medium and alow) adapted to the various kinds of work in ripping, grooving, etc. The table is hard wood, is provided with an adjustable gauge, and being hinged at the back, can be raised or lowered by the hand screw for grooving, rabbeting, etc. For ripping long stuff it has drop leaves which may be raised, making a long table. With this machine one man can easily cut soft wood up to 31 inches and hard wood to two inches thick, doing the work of from four

thus equalizing the strain of the belt and keeping the shaft in line All the working parts are planed perfectly true and are accurately fitted and gibbed, which allows the machine to cut a perfectly straight mortise.

The chisel mandrel is large in diameter and is made of the best cast steel. It is connected to a solid ram working in planed ways, making it impossible for the mandrel to spring when mortising the hardest kind of wood at the full stroke.

The patent chisel reverser is entirely new and perfectly automatic. It is controlled by the treadle movement operating upon the chisel mandrel, and reversing the

bed and base of column. It has a lateral ent of four feet and a cross ment for mortising 16-inch timbers.

There are two boring mandrals. in line with the chisel and is intended to bore the hole for the chisel to start to work in. The auxi iary mandrel has a 16 inch stroke, and may be moved by a hand wheel and screw to bore at any point within the width of the bed, which is 18 inches. Each boring mandrel is driven by a pulley on the machine, making the machine complete and self-contained

Each machine is furnished with 7 chinels. 4, 4, 4, 4, 1, 11 and 14-inch, with augers to match; also with three boring bits for the



"PARAGON" SELF-FEED RIP SAW.

chip breaker to side heads, will be found | to six men with the common hand saw. on this machine. The top and bottom surfacing heads have the improved method of raising and lowering, and other convenient adjustments.

As with all machines made by the Glen Cove Machine Co. the cutter heads are of steel forged solid with their journals; the cutter head boxes are yoked together; presser bars and chip breakers are adjustable; the feed rolls have their parallel movement; the side heads have their patented presser-bar for perfect matching; all the gearing is made from iron cut patterns; the rolls may be raised separately or altogether; the shafting is of steel, and pulleys are steel rimmed; all necessary guides are furnished to hold the lumber in its place while being worked; every part piece has its number cast or stamped

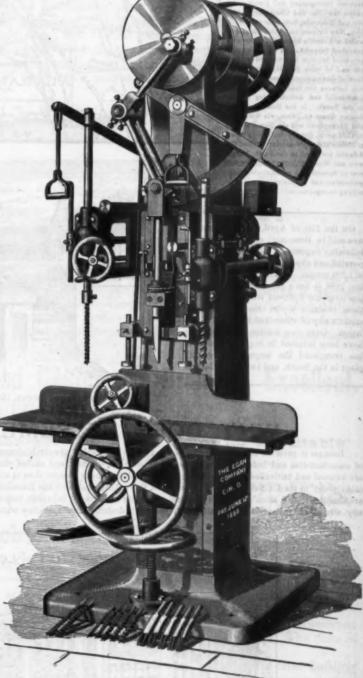
It works accurately, saves time, lumber and labor, and will pay for itself in a short time. Should occasion require, a pulley can be attached to the driving shaft in place of the balance wheel for steam power. Any size from 6 to 10 inch saws can be used on this machine. It weighs 245 pounds. The Seneca Falls Manufacturing Co., Seneca Falls, N. Y., are the manufacturers.

No. 6 Car Mortiser and Borer.

We illustrate herewith a new car mortiser possessing many valuable improvements. It is a very heavy and substantial machine, designed to cut any size mortise from 1 inch to 3 inches wide and 6 inches deep in all kinds of wood.

spon it to facilitate ordering duplicates by wire or letter, and all shafts and fittings, including bolts, screws and nuts, are mished to United States standard sizes.

For more particular description write to the Glen Cove Machine Co., Limited, 24, 28, 28 and 30 Clay street, Brooklyn, N. Y. The column is one casting, and being



NO. 6 CAR MORTISHE.

the up stroke, making, it is claimed, the

most perfect self-reverser ever put on a mortiser of this kind and size.

The patent radial alide is entirely new and is covered by letters patent. It is attached to the connections and operated by the treadle, and prevents the slightest jar on the foot, even when mortising without first boring a hole to admit the chisel, which has never, it is stated, been accomplished heretofore on a machine of this class.

The bed is very large, and is raised and lowered by a right and left hand acrew, placed vertically between the bottom of

chisel every time, the treadle is brought to | auxilliary boring mandrel, 9 16, 11-16 and 13-16 inch.

real

BESSEMER,

WHERE IS BESSEMER?

Located according to its latitude and longitude, Bessemer is in 33 deg. 20' North latitude and 57 deg. West longi-tude from Greenwich. Its position in the State of Alabama is just above its center and about midway between its eastern and western boundaries. Its position in the Southern States is a noticeably central one It is midway between Montgomery and Decatur, be-tween Meridian and Chattanooga, Mo-bile and Nashville, Savannah and Memphis, New Orleans and Louisville, all of which will readily appear from the map published herewith. So far as its geo-graphical location is concerned it could not well be more central, more on the lines of communication and lines of communication and transporta-tion between the leading and principal commercial and manufacturing centers in the South. It has lines of railway in the South. It has lines of railway leading direct to Texas, via Vicksburg and Shrevesport and via New Orleans; to Gulf ports, directly to New Orleans, to Mobile and to Pensacola; to all of the Atlantic ports and to the North, North-west and West. No city of its age was ever so favored with so admirable, comprehensive and extensive a system of railway transportation.

On the 12th of April, 1887, the first lot

was sold in Bessemer; on the 15th of the following September the place was incor-

porated as a city, having then a population of 1,500 people. At this time, 1st September, 1888, it has a population of 3,500. It has over-400 different structures, some of

them business blocks that would highly credit a city of a hundred thousand popu-

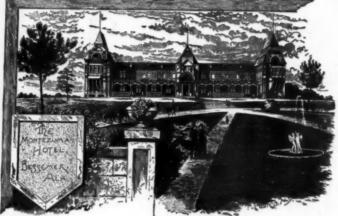
lation. Over two million dollars so far

have been invested in improvements. It

has completed the largest rolling mill

plant in the South, and two of the largest

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MONTEZUMA HOTEL, 194x150, OPENED NOV. 1, 1887.

THE RAILWAYS OF BESSEMER.

In an area of four blocks, nine lines of allways center:
The Alabama Great Southern R. R.
The Louisville & Nashville Min'l Ling.
The Bessemer & Huntaville R. R.

The Georgia Pacific R. R.
The Kansas City, Memphis & Besseer R. R.

The Bessemer & Tuscalooia R. P. The Bessemer Dummy Line (standard

auge). All of these lines are ru

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All of these lines are running to Bessemer. The Bessemer & Huntsville is completed as far as Village Springs, forty miles on the way up Murphree's Valley, with its ultimate terminal point at Hunsville. It is being rapidly extended. The Bessemer & Tuscaloosa is completed to Woodstock, a distance of thirty miles, lacking only eighteen miles of reaching Tuscaloosa. At Woodstock this line connects with the Blocton Ceal Mines Railway. Mines Railway.

Mines Kailway.

The lines of the Bessemer, Selma & Pensacola R. R. and Mobile & Bessemer R. R., now under contract and in process of construction, both center in this area.

The Sheffield & Bessemer R. R. is projected to Bessemer. It is now built as far as Jasper, forty miles northwest of Besse.

iron furnaces, extensive foundry and

tory, machine shops and boiler works are being located, and will construct the

five furnaces mentioned. An enormous

fire brick, tile and terra cotta plant is being

established; has already commenced the

manufacture of fire brick and will regularly

machine shops and planing mills. more iron furnaces are under contract, three of them with foundations already being laid. An enormous furnace fac-

employ 200 hands.

RAPIDLY? WHY DOES BESSEMER GROW SO

of manufactories and industrial institutions and for labor, common and skilled, that are unusual and unrivalled. In Bessemer, pig iron is being made cheaper than at any other point in the United States. The iron ore, the coking coal and the limestone are almost within a stone's throw of the city. The site of Bessemer is superb, unusually attractive, unimpeachably healty, with thorough drainage and first class water completed.

Because it presents opportunities for the investment of capital, the establishment | works. It is already a leading manufacturing point, and is destined to become one of the princi al manufacturing centers in the South. Schools and Churches are already established.

The illustrations are of two structures already completed, one costing \$125,000 the other \$40,000. There are a large number of similar structures in Bessemer already



CHARLESTON BLOCK, 300 FEET FRONTAGE, 2D. AVE., BET. 18TH AND 19TH STREET

ANY INFORMATION CONCERNING BESSEMER WILL BE PROMPTLY FURNISHED BY THE

Bessemer Land Improvement Company.

WM. BERNEY, President. H. M. McNUTT, Secretary.

SHEFFIELD, ALA.

The Iron Manufacturing Center of the South.

A THE HEAD OF NAVIGATION, ON THE TENNESSEE RIVER, SHEFFIELD is the natural outlet for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best distributing point over Alabama, Eastern Mississippl and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. Three Railroads already completed and in operation, and several others assured. Principal shops of Memphis & Charleston Railroad, in which cars and locomotives are to be built, are under contract to be erected here. These will employ between four hundred and five hundred mechanics, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here, some of them being now under construction.

FIVE COMPLETED BLAST FURNACES

Have a capacity of 700 tons pig iron per day. Experts do not hesitate to say that iron can be manufactured more cheaply at Sheffield than at Birmingham, and its river transportation facilities will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

The quality of the iron produced is pronounced by consumers to be the best from any furnace in the South. Stove Works, capacity fifty stoves per day, now in operation. A first-class daily newspaper is regularly issued. Furniture Factory, Bottling Works, Bakery, Dummy Street Railroad, a co-inch Morse Cotton Compress, Electric Lights, Agricultural Implement Works, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, 15-ton Ice Machine just completed and a five story Hotel, with all modern appliances, now being erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers; Paint Works nearing completion. Other manufacturing establishments under consideration, among them a large Cotton Mill soon to be commenced.

Good Water. Free Public Schools and Churches. Drainage Excellent.

HEALTH AND CLIMATE UNSURPASSED.

Splendid Opening for Men of Push and Energy. No Better Point for Profitable Investment. No "OLD FOGY" Element Here.

SITES FOR MANUFACTURING ENTERPRISES,

And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; August 21st, 1887, by actual count, 2,583. Increase of population, 800 per cent. in eight months, and only limited by accommodations. Present estimate (August, 1888) fully 3,500.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of

buildings will compare favorably with those in cities of 20,000 inhabitants.

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LIMESTONE of excellent quality for fluxing iron in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of brown hematite iron ore within twenty miles, along the lines of two Sheffield railroads, which, by actual results in the furnaces, yield above 50 per cent. metal. Iron of high grade is being made with a pound of coke to a pound of metal—a result never before accomplished with Southern ores and coke. The Sheffield & Birmingham Railroad runs through the heart of the Warrior Coal Fields, which abound in first-class coking, steam, gas and grate coal. Timber is abundant and cheap.

The Memphis & Charleston Railroad, Sheffield & Birmingham Railroad and Nashville, Florence and Sheffield branch

The Memphis & Charleston Railroad, Sheffield & Birmingham Railroad and Nashville, Florence and Sheffield branch of the Louisville & Nashville Railroad are now in operation into Sheffield. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the best combined river and railroad transportation center in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. More are needed. For further information address

WM. L. CHAMBERS, Vice-President and Manager,

SHEFFIELD LAND, IRON & COAL COMPANY, - - - SHEFFIELD, ALA.

ALABAMA'S GREAT MINERAL WEALTH

SURROUNDS THE

* CITY OF TALLADEGA, *

Which, according to statistics, is the MOST HEALTHFUL CITY IN ALABAMA, and the County Seat of Talladega County.

THE CITY HAS A POPULATION OF 6,000, AND ITS POPULATION IS RAPIDLY INCREASING.

TALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Talladega from Birmingham to Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

TALLADEGA ONE OF THE BEST DISTRIBUTING POINTS IN THE STATE,

THE CITY HAS

AN EXCELLENT SYSTEM OF COMMON GRADED SCHOOLS,

With a scholastic population of 500, and THE MOST COMMODICUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE. The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

SYNODICAL FEMALE INSTITUTE, Property valued at \$50,000.

D. D. & B. INSTITUTE, Property valued at \$150,000.

BLIND INSTITUTE, (in course of construction,) property valued at \$150,000. FOSTER COLLEGE, property valued at \$150,000.

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No other city in Alabama has so many educational institutions and so many public buildings.

← TALLADEGA HAS THE MOST COMPLETE SYSTEM OF WATER WORKS IN THE STATE. →

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every day from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well macadamized and shaded with beautiful trees, and is well lighted with a SUPERIOR QUALITY OF GAS. Sixty fire plugs and forty gas lamps protect against fire and illuminate the streets.

A LARGE FURNACE PLANT gives employment to thousands of hands, and makes a high grade of chilled car-wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. FOUR LARGE LUMBER MILLS, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leafed yellow Pine of this country. FOUR BRICK YARDS are in active operation. A SASH, DOOR and BLIND FACTORY, a FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL, and various other industries are in successful operation, and the TALLADEGA ICE CO. cools the thrifty population with pure ice at 50 cents per hundred. Another large furnace plant will be completed within the next ten months. A Spoke and Handle Factory and many other industries are projected, with a view to early completion.

Taxable property has increased 100 per cent, within the past twelve months. The rate of taxation is limited in the city charter to half of one per cent., and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county in the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, yielding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance.

Coal is within twenty miles by rail.

THE TALLADEGA LAND & IMPROVEMENT CO. owns 5,000 lots suitable for residences, business and manufacturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. SPRING LAKE PARK is owned by this company, and it is being made the most attractive resort in the State. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy climate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

The Talladega Land & Improvement Co., - Talladega, Ala

POPULATION.-In March, 1887, 1,200; in July, 1888, 7,000; an increase of over 500 per cent. in sixteen months.

TRANSPORTATION.—Thirty navigable rivers will be accessible by steamers from the wharves after the completion of the government works at Mussel Shoals, on the Tennessee river, in 1889. Two trunk lines of railroad are in operation at Decatur-the Louisville & Nashville, and the East Tennessee, Virginia & Georgia systems; and two more are in course of construction.

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MANUFACTORIES.—There are already in operation, or nearly completed, forty manufacturing enterprises that will employ at least 3,500 skilled workmen. These will warrant a population of 20,000 in the near

HEALTH STATISTICS,-Death rate last year only 11 per 1,000 among the whites.

IRON.—The best grades of charcoal pig iron can be manufactured here at a cost not to exceed \$11.50 per ton.

COAL .- Coal for manufacturing purposes is now delivered in Decatur, by rail, for \$1.60 per ton. In a few months the mines up the river will deliver coal for about \$1.25 per ton.

TIMBER.—The finest timbers in the world are on the banks of the Tennessee river, adjacent to Decatur. Decatur is one of the largest hard wood producing centers in the South.

SCHOOLS AND CHURCHES .- Good school and church facilities are here already.

FARMING LANDS .- Decatur is the center of one of the finest agricultural regions in the South. The Tennessee valley produces all kinds of small grain, potatoes and fruits, as well as products characteristic of the South, such as cotton, tobacco, etc.

Review of Decatur's Growth up to July, 1888.

The following enterprises have been located in Decatur and New Decatur, Ala, since February 1, 1887, (with few exceptions) and are in full operation, except where otherwise stated:

operation, except where otherwise stated:

1. The Decatur Land, Improvement and Furnace Company was organized on the 11th day of January, 1887, and has laid out the town adjoining Decatur, known as New Decatur.

2. The Louisville & Nashville Railroad Company are now (July, 1888), completing their extensive new shops for the manufacture and repair of cars and locomotives; also roundhouses, etc., the whole covering 57 acres. It is estimated that these shops will employ 1,500 men.

3. The United States Rolling Stock Company are moving their extensive car shops from Urbana, Ohio, to Decatur, where they are putting up new works, covering 49 acres, for the manufacture of every description of cars. The machinery will be in place by September, 1888. The company will employ 500 men at first, and eventually 1,000.

4. The Decatur Charcoal & Chemical Works, running 48 ovens of a capacity of 55 cords of wood each, each cord producing two gallons of wood alcohol, 50 bushels of charcoal and 125 pounds of acetate of lime. This plant has a capacity to treat about 50,000 cords of wood per annum.

5. The American Oak Extract Company, the largest plant of the kind in the world, consuming 100 cords of wood daily in the manufacture of tanning extract. The plant is now being increased by one third.

6. A 70-ton Charcoal Iron Furnace, nearly completed and ready for operation, built by Gordon, Strobel & Laureau, of Philadelphia, on the latest improved designs. Cost \$111,000.

7. The Decatur Iron Bridge Construction Company, an immense plant with admirable machinery for building every description of railroad and other iron bridges.

8. The Ivens & Son Machine Company. Building (brick) 280 feet by

ther iron bridges.

8. The Ivens & Son Machine Company. Building (brick) 280 feet by 100. Manufacture boilers, engines, etc., and do all kinds of foundry work.

9. Cotton Compress (Morse, 90 inch.) built by Steers & Co., of New Orleans. Cost \$75,000, completed. The buildings are of brick and iron with stone foundation and have the largest storage capacity in the South.

10. The Decatur Car Wheel & Manufacturing Company. Capacity, 100 wheels per day at present; will be increased as fast as possible, as the company cannot now supply their orders.

11. Southern Horseshoe Nail Factory. These extensive works are being constructed, and will shortly be in operation.

12. Decatur Waterworks (both direct pressure and Holly system) now being constructed by Howland & Ellis, of Boston, Mass. There will be 38 miles of pipe, of which over one half are laid already. The water will be turned on about September next, and Decatur will have an unrivaled water supply.

water supply.

13. Moulthrop & Stevens' mammoth brick yard, occupying over 7 acres and employing 50 men, their steam machinery having a capacity of 76,000 brick per day. There are five other brick yards in Lecatur, and brick can be furnished at the present time at from \$5 to \$6 per thousand.

14. H. S. Freeman's lumber mills and lumber yard. Daily capacity of mill 15,000 feet. Handles 2,500,000 shingles yearly, besides laths.

15. Arantz Brothers' saw mills and lumber yards. Operate 3 band-saws.

Daily capacity of their mills 60,000 feet.

16. Decatur Lumber Company's saw mill, planing mill and dryer. A

very large establishment.

17. Berthard & Company's sash, door and blind factory.

18. The Hoosier Mills & Building Company.

19. The Southern Lumber Company. Make sash, doors and blinds.

20. J. D. Jervis & Company's extensive factory for sash, doors, blinds, stairs and hardwood finish.

21. Decatur Builders' Supply Company's lumber yards and planing mills.
22. Decatur Artificial Ice Company; capacity 6 tons daily, to be increased shortly to 15 tons.

23. Decatur Cornice & Roofing Company; manufacture galvanized iron

cornices and iron and tin roofing.

24. The Decatur Street Railway, running cars over 3½ miles of track.

Will have 2½ miles more completed shortly. Is equipped with new rolling

25. The Decatur Telephone Company, operating over 80 stations.
26. The Decatur Electric Light Co., running 30 are lights (Brush system).

27. Grant & Company's furniture factory.
28. Decatur Building Association.
29. Bucheit's Bottling Works.
30. Decatur Printing Company.
31. Artificial Stone Works.

31. Artificial Stone Works.

32. Decatur Plumbing & Supply Company.

33. Alabama Lumber & Fruit Package Company.

34. Decatur Carriage Company.

35. First National Bank. Paid up capital \$100,000.

36. Exchange Bank of Decatur. Capital \$100,000.

37. One daily and two weekly papers.

38. The new "Tavern" Hotel, in full operation, owned by the Decatur Land Improvement & Furnace Company, delightfully situated on their own grounds, magnificently furnished by the Robert Mitchell Furniture Company of Cincinnati, Ohio, with room accommodations for at least 125 guests. There are five other hotels in Decatur.

39. The Decatur Land, Improvement & Furnace Company's incandescent electric plant, furnishing lights to the "Tavern," also to stores, offices and private dwellings.

and private dwellings.

A block to contain an opera-house, stores and offices, is now being built by a joint stock company at a cost of \$60,000.

The Louisville & Nashville Railroad Company handle daily in their depot yards 640 cars, 360 going South and 280 North; employ 85 men, and pay out to employes \$6,000 monthly.

The East Tennessee, Virginia & Georgia Railway Company handle in their yards 150 to 200 cars, employ 14 men, and pay out in wages \$720 per month.

month.

In March, 1887, the number of inhabitants in Decatur was 1,200; in March, 1888, 7,000 in Decatur and New Decatur. Since January, 1888, there have been over two hundred houses erected; many of them are sabstantial brick business houses.

The Decatur Land, Improvement & Furnace Company is offering most favorable terms to parties who will purchase lots for the purpose of building between

favorable terms to parties who will purchase lots for the purpose of building homes.

The capital stock of the company, by retirement of the treasury stock, is reduced to 50,000 shares, or \$5,000,000, of which 45,659\frac{1}{2} shares have been issued and are now outstanding. It is largely held as an investment by small holders scattered through different States, very many of whom have also bought property in Decatur, and by persons engaged in business and various occupations in Decatur.

The strong financial condition of the company can best be appreciated by a perusal of its published statements of July 1st, 1888, a copy of which can be obtained from the secretary at New Decatur, Alabama.

For Maps, Illustrated Pamphlets, and Specific Information, address

The Decatur Land, Improvement & Furnace Company

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Anniston

Iron and Cotton Industry

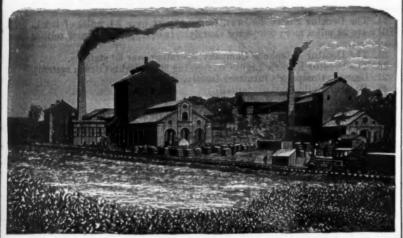
"The Model City of the South."

IT IS

The Profits of Labor only that can add to the wealth and prosperity of a nation or community. It is this only that can make business successful and profitable, sustain and add to the value of real estate.

WHERE

Nature's resources are greatest, where nature's capital in rich agricultural lands, and where iron, coal and other useful minerals are most abundant, most accessible and of superior quality for all purposes, there will capital find its safest investment, largest returns and labor reap its richest reward. It is to the Anniston District where the best professional mining engineers and experts of the United States declare the great center of the Iron Industry of the South will drift, where its manufacture will be most permanent and profitable, and where ores in the greatest abundance and accessibility exist, and where they will be most easily mined, that this applies.



WOODSTOCK FURNACES-ANNISTON.

The Development of the Past Fifteen Years

Confirms all this, and every year convinces the experts of the correctness of their judgment. It is no longer opinion based on scientific and practical education; it is a fact that is clearly and successfully demonstrated, so that the visitor to the Anniston District can see at every step. The four iron furnaces that have been so long and successfully operated, and the new plant now being erected, and rapidly approaching completion, which will be capable of producing one hundred thousand tons of pig iron a year, demonstrate that

NOWHERE ELSE IN THE SOUTH

Has the iron industry been so profitable and so successful, or been established on so permanent a basis, and of no district is this so universally conceded by all, while nowhere else have arrangements been perfected and already established on so complete a scale to work the crude iron into higher branches of manufacture to increase its value, and to bring into the district the profits of skilled labor. THE GREAT CAR WHEEL WORKS OF NOBLE BROS. & CO., their rolling mill and steam forge and machine shops, and the Alabama Car Works, have been absorbed by the

UNITED STATES ROLLING STOCK COMPANY,

With a capital of \$4,000,000, for the purpose of adding to and enlarging the entire plant to build TWENTY CARS A DAY. Everything that goes into the creation of a car, except the tin for the roof and the wire nails, will be created from Anniston's crude material by her labor and skill. Fifty tons of wheel iron will be made into car wheels daily, twenty tons into car axles, fifty tons of pig iron into car and other castings, and fifty tons into bar iron and bolts, making nearly ten thousand dollars per day added to the wealth of the country by profitable labor converting nature's capital to the use of man. This company have a capital of \$4,000,000, and their Anniston works will represent a cash outlay of \$1,000,000. One thousand skilled mechanics will be employed as soon as the great enlargements under way can be completed.

Consumes and increases the value of twenty tons of pig iron per day, while the Pipe Foundry converts to the use of man TWO HUNDRED TONS OF PIG IRON PER DAY in one of the largest and best planned and most convenient labor-saving works on this continent. The Foundry of Murray & Stevenson, Engine and Machine Works of Pinder & Co., and Boiler and Sheet Iron Works of J. & D. Noble, all add to the consumption of crude material by the creation of finished work.

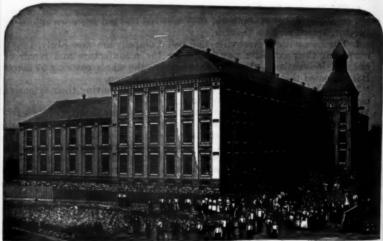
NOR IS IT TO IRON ALONE

That Anniston relies for increase of wealth and population. The Cotton Factory, with eleven thousand seven hundred spindles and three hundred and seventy-five looms, employing over three hundred and fifty operatives, adds greater value to the products of agriculture by converting six thousand bales of cotton into cotton cloth. The immense ninety-inch Morse Cotton Compress, with its brick warehouses, is fast making Anniston a cotton market and commercial center, and aiding its wholesale and retail merchants to extend and hold the trade of the country tributary to Anniston that its system of railroads has opened to them. The Georgia Pacific, the East Tennessee, Virginia & Georgia Railroad systems,

Give Direct Communication and Through Rates

To all parts of the country, while the Anniston & Atlantic Railroad, built by Anniston capital to open up new agricultural and mineral resources, gives Anniston, by connection with the Central of Georgia system, communication with the Atlantic sea coast and the new Anniston & Cincinnati Railroad, built and owned by Anniston citizens, opens up new resources and connections, and a shorter line with the great Northwest.

The proposed extension of the Anniston & Atlantic Railroad to Blocton will give another and shorter line to the great Cahaba Mines, producing the very best coal for domestic and manufacturing purposes in the South. Forty thousand acres of these coal lands, upon which a million and a half dollars have been lately spent in opening new mines and building several hundred coke ovens, ALL OWNED AND CONTROLLED BY ANNISTON CAPITAL, and developed to mine and manufacture three thousand tons of coal and coke per day, secures to Anniston for generations to come a full and certain supply of cheap fuel for all her industries, operated where a rich agricultural country can feed a manufacturing and commercial people, and where the



ALABAMA MANUFACTURING COMPANY'S COTTON MILL-ANNISTON.

Best, Healthiest and Most Invigorating Climate in the World,

With mountain air and pure water, and an elevation of nine hundred feet above tide water, insures the health and comfort of the workman and his family; where health and comfort stimulate and lighten labor, and secure to it and its industries the reward due to both. It is these advantages which have been given by nature that enabled Anniston's citizens to create her past and present prosperity, and which secure her future. It is that they may participate in and avail themselves of these advantages that Anniston invites NEW CAPITAL AND TALENT AND ENERGY from all sections. We will be compared to the secure her transfer of the secure here. Any information, attention and courtesy will be given and shown by addressing or applying to the

ANNISTON CITY LAND CO., Anniston, Ala.

**CONSTRUCTION DEPARTMENT.

E PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

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ALABAMA.

Ayondale—Bridge.—The Southern Bridge Co, have the contract to build six iron bridges in Jefferson county.

Bessemer—Coal Mines, &c.—The Henry-Ellen Coal Co. has been merged into the Bessemer Iron & Steel Co., lately mentioned as organized to build two iron furnaces The output of the mines will be increased. Coke ovens are being built.

Bessemer—Machine Shop and Foundry.— W. H. Beggs & Bros, are thinking of enlarging their foundry and machine shop.

Birmingham—Electric Light Plant, &c.— The electric light plant reported last week as to be erected at Easley City by the Tennessee Coal, Iron & Railroad Co. will have a espacity for 80 arc lights. The company are bailding 150 houses.

Birmingham—Mill, &c,—The Anna Howe Gold Mining Co., reported last week as chartered by R. S. Minor and others to develop gold mines, &c., contemplate erecting a stamp mill soon. The capital stock is \$500,000.

Birmingham—Electric Light Plant.—It is reported that Dr. H. M. Caldwell, A. W. Fuller and others have formed a company to light the residence portion of Birmingham. They will enlarge a plant now in use by adding two 30 arc-light Waterhouse ma-

Birmingham — Coal Mining, &c — The Valcan Coal & Coke Co., capital stock \$100,000, has been chartered to mine coal, manufacture coke, &c., by H. C. Ainsley, W. B Lightfoot and T. H. Eriel.

Brmingham.—The American Building & Loan Assaciation, of Minneapolis, Minn., are organizing a branch association at Birmingham. F. H Petty is agent.

Birmingham — Railroad.—The Birming ham Mineral Railroad Co (Louisville & Nashville) are double-tracking their road from Easley City to Bessemer, about five miles.

Birmingham—Railroad.—The Louisville & Mashville Railroad Co. will, it is said, build an additional track from Graces to Boyles, 8 miles, work to be commenced at once and gradually completed.

Centre—Cotton Factory.—A stock company is reported as being formed to build a cotton factory.

Eufaula—Electric Light Plant.—D. F. Torbett, of Mobile, is negotiating for the erection of an electric light plant.

Florence — Medicine Factory.— W. R. Tyree will move his medicine factory from Staunton, Va., to Florence.

Florence—Electric Light Plant,—Thomas Hollingsworth has purchased the Florence electric light plant and mineral lands from Mr. Swartz.

Gadsden—Residence.—J. W. Inter has let contract for a \$5,000 residence.

Gadsden — Church.—The Episcopalians have let contract for building a new church, previously reported. O. Agricola can give particulars.

Gidsden—Iron Mine and Railroad.—The Chattanooga Mining & Railway Co., of Chattanooga, Tenn., lately mentioned as chartered, have leased the Dirtseller iron ore lands and will soon commence mining. They will construct a three-mile railroad to connect with the Chattanooga, Rome & Columbus Railroad.

Gadsden—Cotton Factory.—The building of a large cotton factory is again being sgitated.

Jacksonville—Ochre Mine, &c.—J. A. Gaboury, lately mentioned as to develop an ochre mine, is now purchasing machinery to mine 20 tons daily. He will erect a mill at a cost of \$15,000 at Jacksonville.

Letohatchie—Grist Mill and Gin,—W. A Brown, whose grist mill and gin were reported last week as burned, will rebuild the grist mill at once and the gin next year.

Mobile—Railroad —The Mobile & Dauphin Island Railroad & Harbor Improvement Co., previously reported as to build a railroad from Mobile to Dauphin Island, and build wharves, &c., at Dauphin Island, have issued \$3,0:0 000 of bonds.

Montgomery — Sewerage System — Proposals for building the extension of the sewerage system previously reported will be received until October 15 by John H. Clisby, chairman sanitary committee, who will give particulars in full.

Montgomery—Building—The Montgomery Real Estate Association will receive, until November 5, new proposals for the erection of their large seven story building, previously reported. Proposals will be received for the whole or for the work and materials of any one trade. Plans can be seen at Montgomery or at office of architect, J. A. Wood, 153 Broadway, New York city.

Montgomery—Cotton Mill.—The Adams Cotton Mills will, it is said, add more machinery to their mills.

Pratt Mines—Coke Contract.—The Tennessee Coal, Iron & Railroad Co. have contracted to furnish the Gadsden Alabama Furnace Co., of Gadsden, 10 car-loads coke daily, which will necessitate the increase of their output.

Selma— Dummy Railroad.—The Selma Dummy Line Co., reported last week as to issue bonds, will issue \$15,000 of bonds to extend their railroad, making it nine miles long.

Sheffield—Iron Furnace.—The Sheffield Furnace Co. will hold a meeting on the 16th inst, to consider a proposition for leasing their furnace and appurtenances.

Troy—@il Mill.—The Troy Fertilizer Co., whose cotton-seed oil mill plant is reported in this issue as burned, with a loss of \$30,-000, are arranging to rebuild at once,

Tuskaloosa—Opera House,—Mrs. L. F. Brady will build an opera house. Plans have been prepared and contract will shortly be let.

Tuskaloosa—Hotel.—Moses Walters will improve the McLester Hotel and build an addition.

ARKANNAN.

Carden's Bottom—Gin.—E. Wilson has erected a cotton gin.

Fayetteville—Flour Mill.—J. W. Massengale, lately mentioned as to build a flour mill, has contracted for machinery for a 200 barrel roller mill. The cost will be \$18 000.

Hickory Creek—Mill and Gin.—Eley & Sons have ordered machinery to rebuild their mill and gin, reported in this issue as burned.

Hot Springs—Railroad.—The St. Louis, Iron Mountain & Southern Railroad Co. (office, St. Louis, Mo.) are making surveys for a branch road to extend fron Benton to Hot Springs, 25 miles. Little Rock.—The Mechanics' Building & Loan Association, with a capital stock of \$2,500,000, has been organized with George H. Mead as president.

Little Rock—Buildings,—Fle'cher & Hotze will erect a block of four or five-story buildings to replace buildings lately burned.

Little Rock—Printing Office.—The Press Printing Co. will put in new and improved machinery.

Little Rock—Railroad.—The Memphis & Little Rock Railroad Co., previously mentioned as surveying to extend their road from Little Rock to Hot Springs, have commenced work at the Hot Springs end. It is probable that the road will be extended beyond Hot Springs to Denison, Texas.

Lonoke-Jail.-Lonoke county has appropriated \$6,000 to build a jail.

Marianna—Courthouse.—Lee county will build a new courthouse to cost \$15,000.

Morrillton—Water Works.—A party in Kansas has been negotiating to build water works. The mayor can give information if anything is done.

Perryville—Cotton Gin.—M. G. Snyers has erected a new cotton gin.

Siloam Springs—Evaporating Factory.— W. O. Ayers, whose fruit evaporating factory was lately mentioned as buraed, will rebuild next spring. The daily capacity will be 500 bushels.

PLORIDA.

Clearwater Harbor-Warehouse,-Dancan Bros. will build a warehouse for storage.

Danedin-Warehouse.-Dauglas & Somerville will build a large store building and warehouse.

Pensacola—Marine Railway.—A \$100 000 stock company has been formed to baild a marine railway. Members of the Sullivan Timber Co. are reported as interested. Work is to be commenced at once.

St. Augustine—Church,—W. W. Maughlin and Philip Priolean, architects, have completed plans for the brick edifice to be built by Trinity Episcopal Church. It will be about 65x123 feet and will cost about \$30,000.

Americus—Telegraph Line,—The Western Union Telegraph Co. (office New York City) are negotiating to build a telegraph line along the Americus, Preston & Lumpkin Railroad.

Americus — Medicine Factoffy. — J. E. Bass, Sr., J. W. Jones and others have chartered the Americus Medicine Co, capital stock \$1,000, to manufacture medicines.

Athens—Electric Light Plant,—The Athens Manufacturing Co., reported last week as to put electric light machinery in their cotton factory, will not do so before next summer.

Atlanta—Publishing.—E. R Carswell, Jr., has formed the Southern Baptist Publishing House, capital stock \$100,000, to publish papers, &c.

Atlanta—Car Works.—George W. Ditridge, James L. Dickey, W. W. Austell, M. M. Bartholomew and others have chartered the Southern Iron Car Line, capital stock \$50,000, to manufacture all kinds of freight cars. &c

Atlanta — Publishing.—A company has been formed to publish a paper to be called The American. Dr. James G. Armstrong will be the editor.

Atlanta—Factory.—Western parties are negotiating to start a large manufactory at Atlanta to employ from 600 to 800 hands.

Augusta—Well.—The U. S. Government has appropriated \$10,000 to sink an artesian well at the U. S. Arsenal. Major J. W. Reilly can give particulars.

Augusta—Canal.—Hampton & B eeden, of Athens, have the contract for part of the work of rebuilding the Augusta canal, previously mentioned as damaged by a flood.

Augusta—Cotton Compress.—Frank W. Foster and James P. Doughty have incorporated the Foster & Doughty Compress Co. to operate their cotton compress. The capital stock is \$100,000.

Brunswick—Electric Light Piant.—The Brunswick Light & Water Co. have received all machinery for their electric light plant previously reported as to be erected, and will put it up at once.

Baena Vista-Church.-The Baptists will build a church.

Calhoun—Courthouse.—The contract for building the new courthouse for Gordon county, previously mentioned, has been let to William Dowling, of Chattanooga, Tenn. It will cost about \$16,000.

Canton—Tannery.—J. M. McAfee is arranging to start a tannery 2 miles from Canton.

Effingham County—Saw Mill.—A. P. Shearouse & Bro are rebuilding their saw mill, reported in this issue as burned.

Elbertor.—Printing.—T. L. Gantt Sons have started a printing establishment and will publish a paper.

Elberton—O.l Mill.—The Elberton Oil Mill Co. have put a new 100 horse-power engine in their cotton-seed oil mill.

Enville—Saw Mall.—Messrs. Roberson are rebuilding their saw mill, reported in this issue as burned.

Forestville-Stove Works,-Stove works are reported to be started.

Forsyth — Cotton Mill. — The Forsyth Manufacturing Co., reported last week as organized with a capital stock paid in of \$25,000, to manufacture cotton goods, contemplate building a 4,000-spindle mill.

Griffin—Street Railroad,—The name of the company recently mentioned as being formed to build a street railroad will be the Griffin Street Railroad Co. The company will apply for charter at next session of legislature at Atlanta.

Griffin-Laundry.-W. A. Bates contemplates starting a steam laundry, and wants to purchase machinery.

Griffin—Electric Light Plant.—The Griffin Manufacturing Co. have, it is reported, purchased electric light machinery for their cotton factory.

Hampton—Cotton Factory.—Efforts are reported as being made to organize a stock company to build a cotton factory.

Job-Grist Mill.-J. W. Bailey has erected a grist mill.

Johnsonville—Lumber Mill.—Bewick & Co. have added machinery to their lumber mill.

La Grange—Depot.—The Atlanta & West Point Railroad Co. (office, Atlanta) will soon build a new depot. Plans are prepared.

La Grange—Plow Works.—W. S. Cox, previously mentioned as to enlarge his plow works, has commenced work on a new brick building, two stories, 75x100 feet. It will be covered with corrugated iron.

Mableton-Guano Factory.—The report previously mentioned that T. J. Low will build a guano factory is correct. It will be on a small scale.

Macon.—The Merchants' & Mechanics' Building & Loan Association has been chartered by C. C. Wilder, S. M. Brown and

Marietta — Water Works and Electric Lights.—The city will decide by a popular vote on November 14 whether or not to have water works and electric lights,

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Marietta — Railroad.— The Marietta & North Georgia Railroad Co., previously reported as to change the gauge of their road to standard and extend it to Knoxville, Tenn., has secured necessary money for the improvements, and the work will be pushed.

Marietta — Ice Factory.—E. P. Dobbs talks of building the ice factory lately mentioned.

Metcalfe—Saw Mill.—A saw mill has lately been started at the new town of Metcalfe,

Newnan—Baggy Factory.—The Newnan Buggy Co., previously reported as chartered, have purchased a site to erect repository and workshop.

Pearson—Saw Mill.—Mallett Bros., of Ida, S. C., have, it is reported, moved their saw mill to Pearson and increased their capacity.

Waresborough—Church,—The Methodists will build a new church.

Waycross-Water Works.-Water works are reported to be built soon. If correct the mayor can give particulars.

West Point—Electric Light Plant.—The capacity of the electric light plant reported last week as to be erected by the Planters' Oil & Manufacturing Co. will be from 300 to 400 lights. They want to purchase machinery.

Willingham—Lumber Mills,—Alford & Sloan, whose lumber mills were reported last week as burned, will rebuild at once. The new mills will be superior to old ones.

KENTUCKY.

Alexandria—Flour Mill.—A 100-barrel roller flour mill has lately been built by Gubser & Co.

Ashland—Furniture Factory.—Light & Crowell will, it is rumored, start a furniture factory in connection with their planing will

Ashland—Gas Lamps.—The United States Incandescent Gas Lamp Co., capital stock \$100,000, has been chartered by Willism Londerrach and others.

Benton—Publishing.—Pool & Story will publish a paper.

Covington—Pumping House.—The foundation for the new pumping house for the Covington reservoir, previously reported, has been completed.

Frankfort — Railroad. — The Kentucky Construction Co. have the contract to build and equip the Kentucky Midland Railroad from Frankfort to Paintville, 140 miles, and have commenced work. 87 miles are to be completed within a year:

Guthrie—Flour Mill.—The Guthrie Mill Co. have added some new machinery to their flour mill.

Henderson—Railroad.—The contract for grading for the extension of the Ohio Valley Railroad from Henderson to Evansville, Ind., previously mentioned, has been awarded to the Central Construction Co.

Henderson — Furniture Factory. — Mr. Shelhosse, of Tell City, Ind., previously reported as to move his furniture factory to the South, is negotiating to move it to Henderson.

Lancaster—Flour Mill.—Potts Bros. have recently purchased some new machinery for their flour mill.

Lexington—Gymnasium.—John R. Allen and others have chartered the Lexington Athletic Club, capital stock \$3,000. They will establish a gymnasium.

Louisville—Ice Factory, &c.—The Louisville Refrigerating Co., capital stock \$400,-000, has been organized to establish an ice factory and cold storage warehouse. Machinery for their plant has been ordered.

Louisville—Jeans Factory.—There is talk of a new company being formed to erect a factory to manufacture jeans extensively.

Louisville—Hall.—The Commercial Club are arranging plans for erecting a large building to be used as a music hall. Louisville— Mining.—Luke Harrington, Henry K. White, Norman A. Smith, Stewart Winslow and Samuel R. Dummer have chartered the Atlas Mineral Releasing Co., capital stock \$500,000, to buy and sell and develop mines in the Western States principally.

Louisville—Iron and Steel Works.—John Hooper, Thomas Clark, Young E. Allison, J. T. O'Neal and others have chartered the Falls City Malleable Iron & Steel Works to manufacture malleable iron and steel, edge tools, &c. The capital stock is \$1,000,000.

Louisville — Candy Factory, &c.— The Parkland Manufacturing Co., capital stock \$5,000, has been chartered to manufacture candies, preserves, pickles, &c., by James L. Bowie and Orris E. Hagerman.

Marion—Flour Mill,—Roller machinery has, it is reported, been put in the flour mill of Davis & Bingham,

Maysville—Land.—The Maysville & Big Sandy Railroad Co, have purchased additional lands to secure better access to the Ohio river.

Newport—School.—The city has decided to issue \$50 000 of bonds to build a school. The mayor can give particulars.

Newport—Furnace.—The Newport Aluminum & Cast Steel Co., lately mentioned as chartered with a capital stock of \$150,000, are reported as building a 20-ton furnace for manufacturing aluminum.

Owensboro — Depot, — The Louisville, Texas & New Orleans Railroad Co. have let the contract for a new depot.

Sidney—Flour Mill,—J. W. Bond is having his flour mill remodeled to the roller system. Machinery has been contracted for.

Trenton—Building.—The Trenton Hotel & Store Co., previously reported as organized, will erect a building to cost \$5,000.

Uniontown—Tobacco Factory.—John H. Barrett & Co. are building a two-story addition, 50x100 feet, to their tobacco factory. It will probably be used as a warehouse.

Versailles—Railroad.—The contract for building the Richmond, Nicholasville, Irvine & Beattyville Railroad, including stations, roundhouses, depots, &c., from Versailles to Beattyville, has been awarded to the Ohio Valley Construction Co. The road, when completed, will be operated by the Louisville Southern Railroad, (office, Louisville.)

LOUINIANA.

Crowley—School,—The board of trade are securing a site for the erection of a school building.

Houma—Canning Factory.—I. M. Price, previously mentioned as contemplating starting a fruit and vegetable canning factory, has, with others, incorporated the Terrebonne Canning Co., Limited, capital stock \$5,000.

Natchitoches—Ice Factory,—An ice factory is reported to be started soon.

New Orleans—Glass Factory—It is reported that F. A. Stinson and Edward Hickey contemplate starting a glass factory.

New Orleans—Factory.—Robert Carey & Co. have asked for permit to erect steam machinery on Julia street.

New Orleans—Excelsior Factory.—The Excelsior Packing Co. have received permit to erect steam machinery on North Basin street.

New Orleans—Tannery.—Parties have \$100,000 raised to build a large tannery at some place in the South, and the Chamber of Commerce are making efforts to have it located at New Orleans.

New Orleans—Electrical Railroad.—T. Prudhomme, Maurice J. Hart, W. J. Behan and Edgar H. Farrar have asked for permit to build an electrical street railroad.

New Orleans—Church,—Plans and specifications have been prepared for a church to be built at Post and Goodchildren streets for the Lutherans. New Orleans—Gymnasium, &c.—The Young Men's Gymnastic Club, capital stock \$75,000, has been chartered to establish a gymnasium, natatorium, &c., probably the ones previously mentioned.

Provencil—Tramway.—W. W. Carroll is building a tramway 2 miles long to haul timber for saw mill.

MARYLAND.

Baltimore—Laundry.—A. J. Mabbett is enlarging his steam laundry at Front and Fayette streets. Will put in new boiler and engine, 60 horse-power.

Baltimore—Cocoanut Factory.—Issac H. Wright is putting steam power in his factory at 266 Dugan's wharf to increase his facilities for desiccating cocoanut. He will also manufacture dippers from the shells and evaporate fruit.

Baltimore—Pork-packing Establishment.
—Harry M. Benzinger has purchased the pork-packing establishment at Pennsylvania and Fulton avenues.

Baltimore—Sail Factory.—The firm of William H. Maguire & Co. has been formed to manufacture and repair sails, &c.

Baltimore—Overall Factory.—Oppenheim, Oberndorf & Co. will start the manufacture of overalls, &c.

Baltimore - Furniture Factory. - Aaron Brag has re-established his furniture factory, previously mentioned as burned,

Baltimore—Buildings—Hugh McCoy will erect a three-story brick building at Fayette and Sharp streets; Boston Fear, 16 two-story houses on Lorman street, and G. W. Parks, 18 dwellings on Carroll street.

Ellicott City—Building.—A fire-engine house will be erected. The mayor can give information.

Hillsboro—Flour Mill.—John W. Knotts is building a flour mill and has contracted for machinery. The capacity will be about 40 or 50 barrels daily.

Rising Sun-Flour Mill.-J. A. Hunter has purchased flour mill machinery.

Sandy Springs—Flour Mill.—J. H. Henderson has purchased roller machinery for his flour mill.

Shamburgh—Flour Mill.—The flour mill of Jacob Shamburger is being remodeled to the roller system.

Utica—Flour Mill.—Roller machinery is being put in the flour mill of John G. Rogers, of Ellicott City.

Washington, D. C.—Car Works.—It is rumored that a stock company has been formed to manufacture railroad cars from sheet steel, under the patents of C. W. M. Smith, of San Francisco, Cal.

Washington, D. C.—Car Shop.—The Baltimore & Potomac Railroad Co., lately reported as commencing work on a new depot, have commenced work also on a brick passenger and freight car shop, 200x70 feet.

Washington, D. C.—Street Railroad.— The Belt Line Railroad Co. will lay an additional track along part of their road.

Washington, D. C.—School.—Thomas Driscoll has been awarded the contract to erect a school building.

Washington, D. C.—Railroad.—Efforts are being made to have the Baltimore & Potomac Railroad Co. (Penn. R. R.) build a railroad from the Alexandria & Fredericksburg Railroad to the south end of the new free bridge.

Washington, D. C.—School.—The contract for erecting the school building on Arthur Place, previously mentioned, has been let to John H. Howlett.

Washington, D. C.—Buildings.—D. B Groff will erect a \$4,000 dwelling on P street; S. H. Kauffman, \$25,000 brick dwelling at 1419 Massachusetts avenue; Anne McL. Cropper, \$9,500 brick dwelling at 1742 M street, N. W.; Enterprise Improvement Co., 9 brick dwellings on Pierce street, N. W., to cost \$8,000; C. Chappell, 4 brick dwellings on F street to cost \$16,000; Eliza Quill, 3

brick dwellings on G street, S. W., to cost \$3,000; David E. Haines, \$5,000 brick dwelling on Harrison street; C. D. Mansfield, a \$15,000 residence at 1525 Eighteenth street; R. R. Taylor, a \$4,000 residence at 1115 Rhode Island avenue; James Mackin, a \$6,000 dwelling at 1445 V street; Mrs. Annie V. Barbour, a \$6,000 building at 435 Tenth street; T. E. Foster, 3 dwellings on Spence street to cost \$9,000, and William F. O'Brien, 3 dwellings on Twenty-third street to cost \$14,600.

MISSISSIPPL

Corinth—Planing Mill.—M. S. Ketchum, reported last week as to put additional machinery in his planing mill, is erecting a new building for the mill. Will put in 45 horse-power engine and boiler to match.

Grenada—Collar Factory.—P. C. Williams has added to his tannery the manufacture of horse collars.

Handsboro—Saw Mill and Box Factory.— It is reported that P. B. Hand is erecting a saw mill and box factory.

Meridian — Electric Light Plant.—The Thompson-Houston Electric Light Co., lately mentioned as to erect a plant, have ordered machinery and will erect it at once.

Meridian—Dummy Railroad.—It is rumored that a dummy railroad 2 miles long will be built.

Vicksburg—Factory.—The J. P. Roach Manufacturing Co., capital stock \$100,000, reported last week as incorporated to manufacture the Roach cotton worm destroyer, are negotiating for a site of about 5 acres for works to be built.

Waynesboro — Railroad.—The Waynesboro, Pascagoula & Gulf Coast Railroad Co. have commenced making surveys for their road.

Wesson—Cotton Mill.—The Mississippi Mills, who are building an additional cotton mill, as previously reported, will make the building five stories instead of four stories.

NORTH CAROLINA.

Asheville—Hall.—The Masons have formed an association, with A. J. Porter as president, to build a hall.

Asheville— Building,—Work has commenced on a four-story brick building for Mrs. J. G. Spears. Charleston—Hotel.—G. N. Blackburn, of

Alpena, Mich., is building a hotel to be completed by December 1. Charleston—Wood-working Factory.—A

wood-working factory will be erected by J. F. Fenson, of Alpena, Mich. Charleston—Publishing.—H. A. Hodge

will establish a printing office and publish a

Charleston—Iron Furnace.—It is reported that Cincinnati, O., parties will build a charcoal iron furnace. B. B. Lake can give particulars.

Charleston—Kaolin Mine.—The Carolina Clay Co. will develop kaolin mine and ship to Trenton, N. J. They will erect a mill for preparing the clay for shipment.

Charleston—Kaolin Mine.—Ohio parties are corresponding with B. B. Lake with a view to developing kaolin mine and shipping clay to East Liverpool, O.

Charlotte—Bagging Factory.—Margolious & Co. have increased the capacity of their jute bagging factory.

Charlotte—Machine Works —The Liddell Co. will this fall build an addition to their machine works, 30x150 feet.

Jacksonville — Railroad. — The Onslow Lumber Co., lately mentioned as to build a railroad from their mill to New Berne, will probably build a road from Jacksonville to New Berne, 36 miles.

King's Mountain—Stamp Mill,—The King's Mountain Tin Mining Co. are erecting a 10-stamp mill.

Lexington—Silver Mine.—It is probable that operations will be greatly enlarged at the Silver Valley Mine. J. A. Leach can give information. Monroe—Depot,—The Carolina Central Railroad Co. (office, Wilmington) and the Georgia, Carolina & Northern Railroad Co. are arranging to build a union passenger depot

Morganton—Electric Lights.—The Morganton Cotton Manufacturing Co., who are building a 2 000 (or 2,100) spindle mill, as previously reported, will put in an electric light plant to be run by an engine of 10 horse-power.

New Berne—Dry-house.—D. Congdon & Son are building a dry-house at their saw mill.

Rutherfordton—Cotton Factory.—J. W. Harlin, R. W. Logan and others are interested in the stock company previously mentioned as being formed to build a cotton factory.

Salisbury—Land.—The Salisbury Cotton Mill Co., who are building a cotton mill, as previously reported, have purchased 80 acres more of land.

Salisbury—Canning Factory.—James B. Lanier is erecting a building at his foundry and machine shop, to start a canning factory next year. It is to be 40x100 feet.

Salisbury—Spoke and Shuttle-block Factory.—F. M. Thompson is reported as to start a factory for manufacturing spokes and shuttle blocks.

Salisbury—Grist Mill and Furniture Factory.—A grist mill and furniture factory are reported to be built. If true, the Salisbury Brick Co. can probably give information.

Salisbury—Tobacco Factory.—C. A. Rice & Co. contemplate erecting a factory for manufacturing plug tobacco.

Salisbury—Tobacco Factory.—Holmes & Miller have started the manufacture of plug and twist tobacco.

Statesville—Corundum Mine,—A syndicate is reported as formed to develop a corundum mine near Statesville.

Statesville—Electric Light Plant.—The city has decided by a popular vote to issue the \$8,000 of bonds to purchase the electric light plant previously reported. The mayor can give information.

Wilmington—Bagging Factories.—The Acme Manufacturing Co., lately mentioned as to put in next year machinery for extensively manufacturing pine fibre bagging for baling cotton, will probably establish bagging factories at other points in the South.

Winston—Railroad —The Richmond & Danville Railroad Co. have contracted for the State penitentiary authorities for the grading of their Mocksville branch. Work is to be commenced at once.

Winston—Chapel.—A chapel to cost about \$9,000 is to be erected. Rev. Dr. Rondthaler can give particulars.

SOUTH CAROLINA.

Abbeville—Bridges.—The county commissioners will, it is said, spend about \$20,000 in building new bridges.

Anderson-Wood-working Factory.-Osbore & Mayfield are reported as enlarging their wood-working factory.

Black's—Cotton Mill.—The Broad River Cotton Mill (Co) has been chartered to build a cotton mill. The capital stock is \$50,000. The corporators are J. G. Black, D. D. Gaston, A. B. Crosby, W. R. Reese and others.

Charleston—Cotton Mill.—The Charleston Cotton Mill Co., lately reported as to add 7,000 spindles to their cotton mill, have awarded the contract for a two-story addition, 115x100 feet, to D. A. J. Sullivan.

Charleston—Hall.—Bids for furnishing competitive plans for a hall and armory to be erected on Vonderhorst street will be received until October 20 by John Kenny.

Columbia—Railroad.—A bill will be introduced in the next session of the legislature to charter the Cheraw & Barnwell Railroad Co. Columbia— Railroad.— The Board of Trade have appointed a committee to ascertain as to the practicability of organizing a stock company to build a railroad to Granby.

Ellenton—Grist Mill and Gin.—A grist mill and cotton gin are being erected by W. E. Ashley. Wants to purchase machinery for grinding cotton seed and for elevating seed cotton.

Gaffney City—Cotton Factory.—The company previously mentioned as being formed to build a cotton factory has been organized. L. Baker can give information.

Greenville—Buildings.—Litton & Wilson have contracted to erect a large three-story brick building for Zion Collins.

Longtown-Mill.-Lewis Wilds has erected a mill.

Spartanburg—Brick-yard.—L. C. Cannon, lately mentioned as receiving the contract to furnish 1,000,000 brick for the Spartanburg Manufacturing Co's cotton mill, has started a brick-yard.

Spartanburg — Foundry and Machine Shop.—Mr. Glasscock, of Greensboro, N. C., contemplates, it is said, establishing the iron foundry and machine shop previously mentioned.

Summerville—Canal.—It is reported that C. W. Sheppard will complete a canal from Saw Mill branch to Dorchester creek, 5 miles.

Summerville—Hotel.—The Summerville Hotel Co. will soon advertise for bids for building their hotel, previously reported,

Sumter—Railroad.—It is reported that the Wilmington, Columbia & Augusta Railroad Co. (office, Wilmington, N. C.) contemplate building a branch from Sumter to Eutawville, to connect with the Eutawville Railroad.

Union-Grist Mill.-D. P. Duncan contemplates erecting a corn mill.

Walnut Grove-Gin.-S. C. Miller & Bro. have purchased machinery for cotton gin.

Walterboro—Grist Mill, Canning Factory, &c.—A company has lately been organized to start a rice and grist mill and a canning factory. J. R. Stokes can probably give information.

TENNESSEE

Bristol—Buildings.—R. O. Pitt is about commencing work on a block of brick buildings.

Bristol-Buildings.-A. M. Carter will erect a block of brick buildings.

Bristol-Cigar Factory,-Frank Collman has re-established his cigar factory lately burned.

Bristol—Furnaces and Rolling Mill.—J. M. Bailey has made arrangements for building the iron furnace lately mentioned. It is to be of 160 tons capacity and for manufacturing Bessemer iron. Another furnace of same capacity and a rolling mill will be added afterwards,

Bryson—Flour Mill.—A roller flour mill is being built 5 miles from Bryson by Andrew Chambers.

Bryson—Flour Mill.—J. B. Morrell contemplates, it is stated, putting roller machinery in his flour mill.

Buckeye—Coal Mines.—The Pioneer Coal & Coke Co. are building railroad to their mines and will be shipping coal about

Chattanooga — Cotton Compress. — The Chattanooga Compress Co., reported last week as chartered, have a compress already erected and in operation. The owners have changed firm to stock company.

Chattanooga—Railroad.—It is reported that the Lookout Mountain Incline Railroad Co, contemplate extending their road.

Chattanooga—Vulcanizing Works.—The Chattanooga Wood Vulcanizing Co, lately reported as chartered, will soon purchase machinery and erect works.

Chattanooga—Baildings.—Dietzen & Bro, have contracted to erect a four-story brick building for William Dowling.

Chattanooga — Building. — The D. W. Hughes Lumber Co. are erecting a building to be used for the storage of lumber.

Cleveland—Sash and Blind Factory.—A sash and blind factory is being built by Mr. Norvill.

Erwin—Railroad.—Unicoi county has voted a subscription of \$25,000 to the Charleston, Cincinnati & Chicago Railroad (office, Rock Hill, S. C.)

Friendsville—Brick-yard.—It is reported that Hackney & Co. have started a brickyard lately.

Green Brier—Distillery.—Charles Nelson has refitted his whiskey distillery with new machinery. The capacity has been increased.

Jackson—Brick Works,—C. Owen & Co. will add machinery to their works to increase capacity to 50 M per day.

Johnson City-Warehouse.-The Standard Oil Co. will build an oil warehouse.

Johnson City—Hotel,—It is reported that a company has been formed by New York capitalists to build a \$100,000 hotel at King's Springs.

Knoxville.—The West Knoxville Improvement Co. has been chartered by M. L. Ross, S. B. Dow, W. B. Lockett, Jr., L. W. Rose and others.

Knoxville—Brick Works,—Middleton & Weatherford will move their brick works to another location.

Knoxville—Slate Qaarries.—A stock company is being formed to extensively develop slate lands in Blount county. The Knoxville Investment Co. can give particulars.

Memphis—Saw Works.—E, C. Atkins & Co, will shortly add machinery to their saw works to increase capacity.

Memphis—Depot.—The Illinois Central Railroad Co. (office, Chicago, Ill.) have purchased a site for a new freight depot to be built next spring.

Memphis—Depot.—Henry Walters, of Louisville, Ky., has prepared plans for the union depot previously reported as to be built by the Illinois Central (office, Chicago, Ill.) and other railroad companies. The cost will be about \$200,000.

Memphis-Ginnery. The Benjes Ginning Co. have put considerable new machinery in their cotton ginnery.

Memphis—Woodenware Factory, &c.— The Union Wagon Co. has been chartered to manufacture woodenware, such as wagons, buckets, barrels, &c. The corporators are E. G. Robinson, A. J. Robinson, W. L. Bailey, P. R. Freeman and others.

Millington—Saw Mill.—The Tennessee Pump Works have put new engine and boiler in saw mill and have erected a dryshed.

Montesuma—Spoke Factory.—J. P. Randolph will add a spoke factory to his mill and gin,

Nashville — Motors, — The Pennsylvania Pneumatic Motor Co, has been chartered by S. F. Leake, J. C. Snow, James A. Hallon. W. H. Dillard and E. J. Frisbee.

Rockwood—Iron Furnace.—The Roane Iron Co., lately mentioned as blowing out iron furnace to reline, will remodel the furnace and erect three hot blast stoves. The capacity of the furnace will be increased.

South Pittsburg—Depot.—McRea & Patton have contracted to build a new passenger depot for the Nashville, Chattanooga & St. Louis Railroad.

Sparta—Flour Mill.—M. L. Clark contemplates overhauling his flour mill.

Spring City—Church.—The Baptists have about commenced work on a frame church.

TEXAS.

Abilene—Tannery.—Charles Nerger has lately started a small tannery.

Amarillo—Hotel,—Gidden & Sanbern, reported last week as to build water works, will erect also a 40-room hotel.

Austin—Laundry, &c.—An addition is being built to the Institute for the Blind, to be occupied in part as a steam laundry, for which machinery has been parchased. A new boiler-house is being built also.

Ballinger-Grist Mill and Gin.-Miller Bros. are erecting a grist mill and a cotton gin,

Ballinger—Courthouse,—The contract to build the new courthouse, previously mentioned, has been awarded to Lowell & Miller, of Brownwood, at \$29,000.

Beaumont—Lumber.—The Reliance Lumber Co. have been awarded the contract to furnish all lumber for the extension of the Southern Pacific Railroad from Victoria to Beeville, 57 miles, previously mentioned. About 9.000,000 feet will be required. The contract includes lumber for section houses, depots, &c.

Burnet — Granite Quarry. — The Texas Capital Granite Co. have not yet closed contract for furnishing the 27,000 car-loads of granite, lately referred to. They expect soon to add \$10,000 of machinery to the plant at their quarries.

Cinco-Broom Factory.-N. W. Noell contemplates starting a broom factory and wants to purchase machinery.

Clarendon—Hotel, &c.—A new town has been laid out near Clarendon, to be call ed Texline, and a \$10,000 hotel is reported to be built.

Colorado—Salt Works.—The company reported last week as to sink a salt well with a view to building salt works, have let the contract for sinking the well, which is to be 1,200 feet deep, to A. T. Hamilton, of Fort Worth. Other wells are contemplated, The Panhandle Machinery & Improvement Co. are interested.

Dallas—Cotton Mill.—The Dallas Cotton & Woolen Mills have completed their first mill, previously reported, and have decided to add 200 more looms. The mill now has 11,000 spindles and 200 looms. The company intend to build two more mills.

Dallas—Well.—J. W. Byrnes & Co. have the contract at \$6,000 to sink an artesian well at the Dallas Bagging & Cordage Factory.

Dallas—Ice Factorý.—The Dallas Ice Co, will put additional machinery in their factory by next season to increase the capacity from 35 to 55 tons daily.

Dallas.—The Howell Shoe Co, have increased their capital stock from \$50,000 to \$100,000.

Dallas—Building.—The Merchants' Exchange contemplate adding two stories to their building at a cost of \$15,000.

Dallas—Street Railroad.—Sanger Bros, and others have asked for permit to build a street railroad,

El Paso—Well.—H. L. Newman and W. C. Martin have ordered machinery to sink an artesian well.

Fort Worth—Water Works,—There is talk of putting in a new and larger pumping engine at the Fort Worth water works. The mayor can give information if anything is done.

Fort Worth—Coal Mining.—The Texas & Pacific Coal Mining Co., capital stock \$2,000,000, has been chartered by R. D. Hunter, of St. Louis, Mo.; J. Y. Hogsett, M. B. Lloyd, A. M. Carter and S. P. Green, of Fort Worth, and others. They will develop the property of the Johnson Coal Mining Co., at Palo Pinto, and increase the output of the mines.

Fort Worth—Bank.—Parties have organized a bank and are negotiating for a site to erect a bank building. S. D. Rainey is probably interested.

Galveston-Electric Light Plant.-The mayor has appointed a committee to investi-

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gate as to the erection of an electric light plant by the city for advertising for bids for lighting the city.

Galveston—Wells.—Louis Seigel, who has the contract for sinking wells to secure a supply of water for the new water works, previously mentioned, has let the contract for sinking several wells to J. W. Byrnes & Co.

Gatesville—Electric Light Plant.—W. F. D. Moltram, of Dallas, agent Edisea Electric Light Co., has contract to furnish the State Reformatory with a 150-light plant.

Houston — Building.— The contract for completing the building for the United States Government, previously mentioned, has been awarded to Kelly Bros, of New Orleans, La., at \$42,050.

Jefferson — Building.—J. H. Carter, of Baltimore, Md., has been awarded the contract for erecting the United States Government building, previously mentioned, at \$12.036.

Jefferson—Cotton and Woolen Mill.—H. Rives, reported last July as to later in the year put in machinery to double his capacity and to manufacture woolen goods, is now putting in the machinery.

Laredo—Electric Light Plant.—The Laredo Electric Light & Power Co. are increasing the capacity of their plant and adding a repair machine shop.

Laredo-Street Railroad.-The Laredo Improvement Co. will build a street railroad

Laredo.—The Laredo Building & Loan Association has been formed,

Leaky—Kaolin Mines.—Mr. Barnett and others will soon begin the development of the kaolin mines previously mentioned.

Lebanon—Flour Mill,—A roller flour mill is being built by Kirkpatrick Bros, and Johnson & Son.

Marshall — Electric Light Plant.—The plant of the Marshall Electric Light & Power Co. has been sold to the Westinghouse Electric Light Co., of Pittsburgh, Pa., for \$4,800.

Midland—Bank.—The Bank of Midland will erect a bank building to cost \$4,000, and will have plans prepared. It will be two stories, 25x75 feet.

Rusk—Courthouse.—Cherokee county will build a new courthouse, work to be commenced next spring.

San Antonio—Electric Light Plant,—The San Antonio Gas Co. have added a 30 2,000 candle-power arc light dynamo to their electric light plant.

San Antonio—Electric Light Plant.—The capital stock of the San Antonio Electric Light Co. has been increased from \$50,000 to \$100,000.

Sulphur Springs—Cotton Compress, &c.—
A cotton compress is to be erected at once
by George W. Boomer. A cotton-seed oil
mill is contemplated to be added next year.

Victoria — Electric Light Plant,—It is reported that the erection of an electric light plant is contemplated. The mayor can give information if anything is done.

Weatherford-Hotel,-The building of a large hotel is being agitated.

VIRGINIA.

Abingdon—Water Works and Electric Lights.—The city has decided by a popular vote to issue the \$20,000 of bonds for water works and electric light plant, previously reported.

Burkeville—Bark and Sumac Factory,— George Campbell & Co. will probably rebuild their bark and sumac factory, reported last week as burned, but have not fully decided

Estillville—Saw and Planing Mills.—J. P. Kane and others will shortly erect saw and planing mills, and want to purchase outfit of machinery.

Lexington — Church. — The Methodists have purchased a site to build a new church next spring.

Liberty—Flour Mill.—The Liberty Flour Mill will be put in operation, after a year's idleness.

New Castle—Lime Kiln —Mr. Cripps is building an additional lime kiln.

Newport News—Ship-yard,—The Chesapeake Drydock Co., who are building an immense drydock as previously reported, will increase their capital stock from \$500,-000 to \$1,000,000, to add a large yard for building ships.

Norfolk—Bucket and Tray Factory.—A factory for manufacturing wooden buckets and dough trays is to be started at Brambleton.

Norfolk—Shirt Factory.—E. Campe & Sons have started the shirt factory on Church street, previously mentioned. They employ 75 hands at present.

Pocohontas—Hotel, &c.—The Pocohontas Inn Co., lately mentioned as organized with E. J. Collins as president to build a hotel, will erect gas machine at the hotel when built, and are thinking of supplying outside parties with gas.

Pocohontas — Railroad. — Charles S. Churchhill. engineer Norfolk & Western Railroad (office, Roanoke), has completed the surveys for the contemplated extension of the road from a point in McDowell county, W. Va., to the Ohio river near Ceredo, W. Va., and has nearly completed surveys and map of the locality near Ceredo, where a bridge across the Ohio is proposed. Field location will go on during the winter.

Portsmouth — Basket Factory. — Mr. Brown, lately mentioned as to enlarge his basket factory to double present capacity, is organizing a stock company for that purpose,

Richmond—Plow Works—The Watt Plow Co. has been formed to succeed Watt & Call in the manufacture of plows, agricultural implements, &c.

Roanoke—Street Railroad.—The Roanoke Street Railroad Co., previously reported, are making surveys preliminary to locating their road.

Roanoke—Street Railroad.—There is talk of building a street railroad from Roanoke to Salem, about 7 miles.

Roanoke—Hotel, &c.—Parties are considering the erection of a large hotel and establishing a summer resort on Mill mountain, but nothing definite as yet has been done.

Suffolk—Planing Mill, &c.—The Gay Manufacturing Co. will build a planing mill and six additional dry-kilns, and have commenced work on foundation of mill.

Virginia Beach—Pavilion, &c.—The Ocean Shore & Improvement Co. will build a pavilion, 200x60 feet, with an annex, three stories, 40x60 feet.

Weyer's Cave—Hotel, &c.—The Baltimore (Md.) parties previously reported as to build a hotel, &c., are now at work building hotel, laying out parks, &c. An electric light plant is reported as to be erected.

WEST VIRGINIA.

Benwood—Tube Works.—The Benwood Iron Works will probably have some of their furnaces at their tube works rebuilt to use coal.

Bramwell—Buildings,—Bondurant, Crawford & Co., of Liberty, Va., have contracted to erect buildings to cost \$25,000.

Buckhannon—Railroad.—J. N. Camden, of Parkersburg; W. N. Chancellor, J. N. Camden, Jr., F. B. Camden and V. B. Archer have chartered the Buckhannon Railroad Co. to build a railroad from Buckhannon up the Buckhannon river.

Charleston — Railroad.— It is reported that the Newport News & Mississippi Valley Railroad Co. (office, Richmond, Va.) are making surveys for a railroad proposed to be built up Coal river.

Charleston—Courthouse,—Kanawha county will decide by a popular vote on November 6 whethor or not to issue \$50,000 of bonds to build, a new courthouse.

Charlestown — Creamery. — A creamery has been started by Washington Bros.

Coalburg—Coke Ovens.—It is stated that S, M. Buck has let the contract for 50 additional coke ovens.

Colliers—Church.—The Catholics are preparing to build a church.

Fellowsville—Flour Mill,—P. S. Knotts has purchased some new machinery for his flour mill.

Martinsburg—Grain Elevator.—The Cumberland Valley Railroad Co. (office, Chambersburg, Pa) are building a grain elevator.

Parkersburg — Church.—A church is to be erected. Mr Ogden can give particulars. Parkersburg—Car Shop.—The Ohio River Railroad Co. are erecting an additional building for their car repairing department.

Quinnimont—Coke Ovens.—The Beechwood Coal & Coke Co, are reported as to build 100 coke ovens near Quinnimont.

Quinnimont—Coke Ovens.—The Slate Creek Coal Co. contemplate, it is said, building 100 coke ovens.

St. Albans—Saw Mill, &c.—S. C. Rowland, of Port Deposit, Md., and B. C. Bowman and others of Pennsylvania, are prospecting with a view to purchasing timber lands for development. They have purchased the Mohler saw mill property.

Weston — Telephone and Telegraph Lines.—J. H. Bare and J. H. Finster, of Weston, have chartered the Weston & Centreville Telephone & Telegraph Co., capital stock \$5,000, to build telephone and telegraph lines.

Wheeling—Temple.—J. Younge is preparing plans for temple to be built by the Hebrews at a cost of about \$20,000. It will be of brick, two stories, 40x100 feet.

Wheeling.—The Baltimore & Ohio Railroad Co. have bought the Arbenz furniture factory property on Twentieth street.

Wheeling—Railroad.—The Wheeling & Harrisburg Co. have commenced work on their terminal lines.

Wheeling — Chinaware Works. — The West Virginia China Co., previously reported as to enlarge their chinaware works, have commenced work on two additional kilns and will soon commence work on their decorating kilns.

Wheeling—Bridge,—D. M. Cary, of New York, and J. L. Duke, of Berea, O., have contracts for building the bridge across the Ohio river, reported last week, and are preparing to commence work.

BURNED.

Baltimore, Md.—The butchering establishment of Charles A. Blumhardt damaged \$1,000 by a boiler explosion.

Bowling Green, Ky.—The saw mill of Forbes & Co.

Brownwood, Texas.—The Brownwood Roller Flour Mill; loss \$25,000.

Echo, Tenn.—The saw mill of Reese Eubanks damaged by a boiler explosion.

Effingham County, Ga.—The saw mill of A. P. Shearouse & Bro. Is being rebuilt.

Enville, Ga.—The saw mill of Messrs.

Roberson. They are rebuilding. Florence, Ga.—The gin of W. S. Shep-

herd.
Haroldton, Ark.—The gin of Cannon

Bros.; loss \$1,500.

Hartsville, Tenn.—The saw mill of T. R.

Eubanks & Co., 8 miles from Hartsville, damaged by a boiler explosion,

Hickory Creek, Ark,—The mill and gin of Eley & Sons; loss \$2,200. Machinery has been ordered to rebuild.

Leesville, S. C.—The gin of J. C. Bodis. Marion, S. C.—The turpentine distillery and cooper shop of Alford Bros.

Monroe, La.—The grist mill and gin of D. A. Breard, Jr.; loss \$3,000.

Montgomery, Ala.—The gin at the Montgomery Oil Works damaged by a boiler explosion. Plano, Texas.—The Plano Compress Co's cotton compress damaged by the explosion of the cylinder.

Pungo, Va.—The Pungo Grist Mill damaged by a boiler explosion.

Troy, Ala.—The cotton-reed oil mill plant owned by the Troy Fertilizer Co.; loss \$30,000. They will rebuild at once.

Willingham, Ga.—The lumber mill of Alford & Sloan; loss \$40,000. Will be rebuilt.

The gins of R G. S. Austin, Pine Bluff, Ark.; A. Weaver, Harris Ala.; P. D. Cox, Green's Cut, Ga.; David Kyles, Eutaw, Ala.; Mr. Knox, 3 miles from Terrell, Texas; J. C. Harris, Tiptonville, Tenn.; Brashear Bros., near Alexandria, La.; Thompson & McAlex, Spring Lee, Ark.; David Long, Harris county, Ga.; Clements & McCall, Buena Vista, Ga.; Mr. Bades, Caldwell, Texas; L. L. Lee, 5 miles from Furman, Ala.; A. P. Blalock, 4 miles from Marshall, Texas, and Henry Denzman, Temple, Tex., have been burned.

Salt Works.

COLOBADO, TEXAS, Sept. 26, 1888. Editor Manufacturers' Record:

Boring for salt will begin at once, and when the well is finished the salt works will be erected. The Panhandle Machinery & Improvement Co. and others are interested. C. M. Adams.

Saw and Planing Mills.

ESTILLVILLE, VA., Oct. 2, 1888. Editor Manufacturers' Record:

Some other parties and myself will erect saw and planing mills at this place this fall, and want to purchase outfit of machinery.

I. P. Kane.

To Extend Dummy Railroad.

SELMA, ALA., Oct. 5, 1888.

Editor Manufacturers' Record:

We will issue, about November 1, \$15,000, 7 per cent., 10 year bonds, for extension of line, making line 9 miles long. Stock \$25,000, bonds \$15,000, and fully equipped.

Selma Dummy Line.

To Develop Ochre Mine.

JACKSONVILLE, ALA., Oct. 1, 1888. Editor Manufacturers' Record:

I will develop an ochre mine, and am now buying machinery and appliances to mine 20 tons per day. The mill will be located in Jacksonville and will cost about \$15,000.

J. A. GABOURY.

m Fi Li

Iron Furnace Reported to be Built.

CHARLESTON, N. C., Oct. 3, 1888. Editor Manufacturers' Record:

Mr. G. N. Blackburn, of Alpena, Mch., will complete his large hotel by December 1. A large wood-working establishment will be built in this place by Mr. J. F. Fensom, of Alpena, Mich. Mr H. A. Hodge, of Jackson, Mich., will issue the Swain County Herald about November 10. Cincinnati parties have secured mineral lands four miles south of town and will erect a large charcoal plant. Arrangements are completed for the shipment of large quantities of kaolin to Trentoa, N. J.

B. B. Lake.

Machine Shop.

ATHENS, GA., Oct. 4, 1888.

Editor Manufacturers' Record :

I will start machine shop, and will be running by the 8th inst. as a general repair shop, and will run by steam; employ 12 men for a start; increase as I go. Size of building is 75x50 feet, two stories. Willadd to it.

R. Lucas.

MACHINERY WANTED.

of any kind consult our advertising columns, and if you cannot find just t you wish, send us particulars as e kind of machinery needed. We will make your wants known free of cast and in this way secure the at n of machinery manufactu throughout the country. You will thus get all information desired as to arices, etc.

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Roilers, &c. - The Piedmont Ice Co. Greenville, S. C., are in the market for a new first-class steel tubular boiler, 60 to 80 orse-power; also feed pump and feed water

Bridges .- W. H. Curtis, Meridian, Miss will receive proposals until November 5 for building 2 bridges. Particulars can be had from Mr. Curtis

Broom Machinery.—N. W. Noell, Cisco, Texas, wants the address of manufacturers of broom machinery.

Corn Cleaner.—Z. Murphy, Harrison, Ark., wants to purchase a machine (small)

Electric Light Plant,-The Planters' Oil & Manufacturing Co., West Point, Ga., wan to purchase machinery for an electric light plant of from 300 to 400 lights capacity.

Flour Mill Machinery.-The Somerville Compress & Warehouse Co., Somerville, Tenn., want to purchase machinery for a four mill of from 30 to 50 barrels daily capacity.

Knitting Machinery.-Theodore Buer baum, Salisbury, N. C., wants to correspond with manufacturers of knitting machinery for knitting socks and stockings.

Laundry Machinery.—W. A. Bates, Griffin, Ga., wants to purchase laundry machinerv.

Saw Mill Machinery .- M. L. Marley, Lumber Bridge, N. C., wants to purchase saw mill machinery.

Sewerage System .- John H. Clisby, Montgomery, Ala., chairman sanitary co mittee, will receive until Octobor 15 proposals for building the extension of the sewerage system. Full particulars can be had from him.

Wood-splitting Machinery .- J. A. Ziman, secretary New Orleans Coffin & Furniture Manufacturing Co., New Orleans. La., wants to purchase machinery for split-ting stove wood 18 inches long.

Wood-working Machinery .- Prices of the following machinery are wanted by I. P. Kane, Estillville, Va.: A 30 horse-power detached portable engine and boiler, center crank, with necessary attachments; 52 inch solid saw, 8 and 9 gauge; a No. 2 Champion planer, molder and matcher combined, single surfacer; a 32 inch band saw; a ten ing machine and a dimension saw table.

To Manufacture Tile and Potterv.

COVINGTON, KY., Oct. 1, 1888. Editor Manufacturers' Record;

The Arlington Tile Co. has been organized, incorporation papers being filed Sepber 26th. Capital stock is \$25,000. Object is to manufacture decorative and ustic tiles and specialties in pottery ARLINGTON TILE Co.

LOUISVILLE, KY., Oct. 6, 1888. Réiter Manufacturers' Record :

We are building an addition to our storage warehouse, which will cover space 105 feet by 251 feet, and will be six stories high. It will be used principally as a storage place for tobacco in hogsheads. Will cost \$50,000; contracts all let. Our present building is 1574 x203 feet, five

A Strong Speech.

At the opening of the Rome (Ga.) Exposition last week, Gov. Gordon made a most striking speech, in which he told of the rapid advance of the South under the many discouraging circumstances due to the most disastrous war ever known. Referring to the advantages possessed by the South, he said:

"God has blessed us with every variety of There is not one of the cereals needful to the comfort or the use or the enrichment of man which you cannot grow equally as well and possibly better than any other portion of this great country. There are many products which are peculiar to this country and cannot be grown in other sec-Take the cotton plant, for instan A few years ago it was valued only for the staple. Now the seeds, formerly left to rot where they fell, have become an agent of mmercial values, recognized through the civilized world; and to-day, as I speak to you, experiments are being tested, inventions are being patented, processes are being tried, which are to convert the plant itself, the stock and stem and root, into a fibre which shall excel even the snowy ece of opening bolls.

Take our pine forests. But a few year ago they were valued only for the lumber they produced. Its wiry leaf was recognized as absolutely valueless, its only fu tion being to waive gracefully in the sun light and sigh to the passing wind and in-tone its weird music, sweet and sea-like, so familiar to Southern ears. But, thanks to the inventive genius of the Southern people, and the blunders of that great grasp bagging trust," that neglected wiry leaf is being converted into a covering for our cot-ton bales, which in strength and durability shall equal, and in economy of production far excel, any covering every yet woven by There it is, my countrymen, (here Gov. Gordon held up a sample of the pinstraw bagging) and what the South felt a few months ago was to be its extremity has proved its opportunity, and what the grea elephantine bagging trust thought to be its opportunity is about to prove its dire ex-

But I must pass on. Now, why, I ask again, this wonderful progress? It is due largely to our climate. Have you ever studied that question of climate? you ever thought of the molding and mod ifying influences of climate upon the people upon their manners, upon their mode of life, their customs, their laws, their institutions? Under this head may be groupe a thousand advantages that pertain to this favored land of ours. In this climate be neath the blue heavens which a benignan God has given us, in this land of the sun has produced all that is needful for macheaper and better than any other land, and therefore its very products lessen the cost of living; therefore the cost of labor is less ened and also the cost of manufacture

But I must hasten to a conclusion. This climate of ours is itself an invitation to I deplore the absence of our Northern friends from this exposition, and when I remember what this country has done in the last decade, the marvel is not only that they should not visit us, but tha they should immigrate to our lands and find

ermanent homes among us.

Take Georgia in the last decade. Bear ment while I read to you what Georgia has done. Within the last decade Georgia improved lands have increased 20 per cent.; her farming implements 69 per cent.; her city and town property 73 per cent.; her iron works 97 per cent.; capital in her mines 102 per cent.; railroad property 212 per cent., and cotton manufacturing 393 per cent.

Point to me a land which under such circumstances has marched to such a victory

ated such difficulties within a decade. Why, these troubles to which I just now referred, as I said before, could be enumerated, but the catalogue is too long. I mention not your loss in slaves; I say nothing of the disorganization of your labor, the dismemberment of your society, the disruption of your relations be capital and labor; nothing of the de tion of homes, of fences, of lines of transctation; nothing of hostile legislat Washington and the lashing effects of bad government at home; nothing of impending and threatened race conflicts; nothing of bad counsels, too often heeded by a wellmeaning race, untutored in the grave responsibilities of republican citizenship. n none of these. I leave them all out of the calculation, and I point to but one, only one obstacle to your progress. I allude to the financial difficulty, the absolute want of money. Why, money you had none, and yet from that nothing you have been forced to pay the special enormous cotton tax levied in wrath and declared unconstitutional by the highest courts. In addition to that you have ungrudgingly and cheerfully aided in paying to the brave men of the Federal army one thousand millions in pensions, not one dollar of which went to one of your sons or was spent in your home for your benefit.

and yet you have marched over or through all these barriers thrown across every r and pathway of your progress like myriads of barbed wires, while they pierced your feet and tore your clothing at every step.

You not only were without money, but you could borrow no money. You had not the means to borrow save at a rate of interest so ruinous that it threatened the confiscation of your property, and would have mashed any other people and country into inevitable ruis and plunged them into universal bankruptcy.

But you have triumphed over all these barriers. Again, I submit the question to calm, candid, cold judgment of the business world whether there is a parallel to your trials and successes. Again I ask, why is This inquiry is partially answered in the reference already made to unrivalled mineral wealth. Our manganese and marbles and unequalled slates are finding a market be-yond our borders. Our coal and iron, linked together like Siamese brothers by natures ent, twin sons of Hercules, slumbering for the ages side by side in the same bed, as aroused from their long sleep and lift their puisant arms to strike for Southern supremacy in one of the world's greatest industries. On the head of which section the iron crow shall finally rest it requires no prophet's eye to discern.

Perhaps in no portion of the globe are the natural conditions so favorable for cheap manufacture of iron as in these Southern States. Our Northern friends already begin to realize the situation; for Southern iron finding sale in the iron marts of Pennsylvania.

A like state of facts must, sooner or later, give us precedence in the manufacture of n goods and in its concomitant indus tries. Napoleon's adage, that victory will finally rest with the heaviest battalions, is as true in the competitive contests of peace as in the bloody conflicts of war. The heavy battalions, the favoring circumstances, the partialities of nature, the all-conquering facts, are on the South's side in this contest.

Coal Mines to be Developed.

ATLANTA, TEXAS, Oct. 5, 1888 mufacturers' Record

The coal mines discovered in this county are the best grade of lignite, the cheap and best fuel to be obtained in the South The quantity is unlimited. mining and manufacturing company will soon be organized. The fuel has been successfully tried on the Texas & Pacific Railroad trains, making all the steam required; also in furnaces of saw and grist mills, houses and kitchens. It is good everywhere. S. J. Monnes, M. D.

A Great Increase.

The number of new industrial enterprises organized in the South since January 1, 1886, of which the MANUFACTURERS' RECORD has given full particulars, is nearly 8,000, divided as follows:

Iron furnace companies	79
Machine shops and foundries	979
Agricultural implement factories	77
Flour mills	348
Cotton mills	245
Furniture factories	233
Gas works	29
Water works	20.00
Carriage and wagon factories	- 730
Electric lig't companies	1,007
Mining and quarrying enterprises	1,007
Lumber mills, including saw and planing mills,	1 304
sash and door factories, stave factories, &c	1,500
Ice factories	100
Canning factories	100
Stove foundries	26
Brick works	1.000
Miscellaneous iron works, rolling mills, pipe	
works, &c	- 165
Cotton compresses	84
Cotton-seed oil mills	45
Miscellaneous enterprises not included in fore-	Second .
going	2,084
	-
Total	2,958
	- seedly

As large as these figures are, they do not include thousands of cotton ginneries, small grist and saw mills and kindred enterprises costing from a few hundred up to a thousand dollars or so each.

What a magnificent record of industrial growth is here portrayed! These statistics tell of how rapidly the South is developing its manufacturing interests; how its furnaces to make iron are increasing; how the machine shops and rolling mills to consume the product of these furnaces are developing; how the cotton mills and the cotton-seed oil mills, the wood-working factories and all other industries are growing. Truly the South has made great progress in the last three years.

Some idea of the immensity of the tobacco business of Durham, N. C., can be obtained from the fact that sale of revenue stamps at that place in September amounted to \$66,332.07, and October, it is thought, will reach a still higher figure. This is at the rate of about \$800,000 a year. For a small town in North Carolina this is a tremendous business, but then it should be remembered that one tobacco house in Durham is said to spend \$300,000 a year in advertising.

To Erect Electric Light Plant.

Вівміненам, Ала., Ост. 8, 1888. Manufacturers' Record :

We will erect 80 arc light electric plant at our furnaces at Ensley at once. are also building 150 houses.

TENNESSEE COAL, IRON & R. R. Co., H. HARGREAVES, Supt.

Canning Factory.

HOUMA, LA., Oct. 6, 1888. Editor Manufacturers' Record:

The charter of the Terrebonne Canning Co. has been published. Operations will be commenced as soon as other preliminaries are gone through with.

I. M. PRICE.

Electric Light Plant.

WEST POINT, GA., Oct. 8, 1888.

Editor Manufacturer? Record:

Want an electric plant for works, and expect to supply lights requiring a plant of 300 to 400 lamps.

PLANTARS OIL & Mrs. Co.

An Eastern Kentucky County.

PIKEVILLE, KY, Oct 1, 1888. Editor Manufacturers' Record:

Pike county is in advance of any other county in Eastern Kentucky in the way of progress. She has erected a courthouse, which is now being roofed with slate, at a cost of \$23,700. It is indeed a model build ing, and the finest public building in this State east of Lexington. We are now erecting a bank build ng which will cost about \$3,000. The capital stock has not all yet been raised, but the books have been opened and enough subscribed to start business; so the building has been let to contract and work now progressing. The Presbyterian church is also building a college at this place. The stone and brick work has been let to contract, and the stone work will be finished this week The school will not op'n, however, until September, 1889. The dormitory has not yet been contracted, and will not be before spring. The town is at the head of steamboat navigation on the Big Sandy river. and will be on the line of the C., C. & C. R. R., if built. We have two as good hotels as can be found in Kentucky, and they are always full. We have two church buildings and another in contemplation. We have nine stores, all doing a lively business; two wagon and blacksmith shops, one of them doing a business of \$10,000 a What we need is a saddle and harness shop, a dealer in stoves and tinware, hub and spoke factory and crockery estab lishment, and a newspaper to advertise the old and the new business. All of these industries and enterprises will have a radius of 100 miles square, without opposition, as a field in which to work. If this is not inducement enough. I do not know where to point you. This is a beautiful climate, and the whole country is underlain with the finest coal field in America, both coking and bituminous. We have the fire-clay and the forest, as well as a productive soil. If the C., C. & C. R. R. is built, I do not know of better facilities for manufacturing than in this county. All the raw material is here. The river is navigable for boats to this town. We have a daily mail and daily stage line and six mail routes to this place, making our postoffice a distributing office

C. M. PARSONS.

CAPITALISTS from Richmond, Va., have arrived to commence work at once on the plant of the Minnesota Car Company at West Duluth. They are Colonel William E. Tanner, J. F. T. Anderson, son of General Joseph T. Anderson, and Superintendent R. W. Jeffrey, of the Tredegar Iron Works, the first two being heavy stockholders in the Tredegar company. They state that the works will be employing 1,000 men by July 1, 1889, and that 15 freight cars will be turned out per day. The plant will consist of large rolling mills, having an 18-inch and also a 10-inch train, two foundries, one of which will be devoted solely to turning out wheels; a planing shop, wherein the wo work will be manufactured, a machine shop and a shop for putting the parts of the cars

The Manufacturers' Record solicits correspondence relating to the manufacturing, mining, lumbering and all other material interests of the Southern States. Letters on any phase of Southern development, facts as to the resources of this section, as to the resources of this section, notes of new enterprises to be started, etc., etc., will all find a welcome. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested.

Opening Coal Mine.

BIRDSVILLE, KY., Oct. 5, 1888. Manufacturers' Record :

We have organized a company, known as the Ohio River Coal & Improvement Co., with an authorized capital stock of \$1,000,000. Are now sinking a shaft at this place. J. D. TRAIL, Cor. Secy.

Contract to Build Railroad.

MAHANOY CITY, PA., Oct. 2, 1888.

Editor Manufacturers' Record:

We have received contract for that portion of the Martinsburg & Winchester extension of Cumberland Valley Railroad lying in Virginia; Messrs. Rickets & Kerns that in West Virginia.

CHAS. F. KING.

BIRMINGHAM, ALA, Oct. 1, 1888. Editor Manufacturers' Record:

Mr. W. B Barrow, T. F. Johnson and myself have formed a company, and we are making furniture. Name is East Birmingham Furniture Co. F. J. HIBERT.

Enlarging Foundry.

CHATTANOOGA, TENN., Oct. 4, 1888. Editor Manufacturers' Record:

We are adding an addition to our foundry of about 60x60 feet; brick and stone. CHATTANOOGA PLOW CO.

Will Rebuild Lumber Mills.

WILLINGHAM, GA., Oct. 6, 1888. Editor Manufacturers' Record

We will rebuild at once better mill than ALFORD & SLOAN. we had before.

Building Coke Ovens.

OAKLAND, MD., Oct. 5, 1888. Editor Manufacturers' Record :

We are building coke ovens. We have a number of men at work. The capacity of each oven will be 41 to 5 tons.

OAKLAND COAL & COKE CO.

To Enlarge Plant.

BURNET, TEXAS, Oct. 3, 1888.

Editor Manufacturers' Record:

We expect very soon to enlarge our plant to the extent of \$10,000 in improved machinery. We expect to be able to supply all demands; our quarries are inex-haustible. TEXAS CAPITOL GRANITE Co.

RIDGEWAY, S. C., Oct. 2, 1888. Editor Manufacturers' Record

I have built a grist mill and expect to build a flour mill in addition, to run by same power (water), if after testing it will Have a cotton gin also in connection with grist mill, run by water.

L. T. WILLIS

New York Iron Market.

cially reported by WARREN, WOOD & Co., Pig NEW YORK, Oct. 9. 1888.

Pig Iron.-There is nothing new to report in the market. Prices are firm and denand fair. Business will be slow until after the election, when we expect a good trade and a boom if Harrison is the sucessful candidate,

Cotton Yarns and Warps.

Single skeins:	
68 to 108	15%@16
198 to 908	16 618
205 to 268	28 @so
306	21 @-
408	93 @-
a-ply &s, skeins	1614@-
H 108, M	161/20-
· H IN, H	1634@17
" 145, "	17 @-
** 905, **	19 @19%
** 848, **	21%(0)03
" a6s, "	22 16@-
408, 41	30 @31
	1616
Soft twist, single skeins:	
6s to 10s	16 @-
6s to 106, cops	26 @27
195 to 995, of	37 @x836
a6a, **	19% 6-
408, 44	13 @1334

Single chain warps:	
ICS	16%@-
148	
z6s to 206	17%@18
#25	19 @-
266	21/20-
306	94 @95
Two-ply chain warps:	
193	
146	17%@18
205	20 @-
266	
286	
308	25 @26
Wass Work and Dhiladelphia assessions	Combahad

New York and Philadelphia quotations furnished by Buckingham & Paulson, 83 Leonard street, New York; 138 Chestaut street, Philadelphia, and a Exeter Place, Boston. October 9, 1888.

MAKEPEACE & ARCHITECTS and Mill ENGINEERS
PROVIDENCE, R. I. Plans, Specifications and
Estimates furnished for Cotton and Woolen Mills.

LOCKWOOD, GREENE & CO.

MILL ENGINEERS,

NEWBURYPORT, MASS.

PLANS AND EPEDIFICATIONS FURNISHED FOR THE GONETING IN, EQUIPMENT AND ORGANIZATION OF COTTON AND WOOLEN

LAUNDRY FOR SALE.

Steam Laundry. Complete outfit, consisting of 13 H. P. engine, 20 H. P. boiler (steel), drying house, and all washing machinery, (12 machines), new and ready to run. Will sell land, buildings and dwelling house, or laundry machinery, less steam plant. Loca ed in a growing city of 4,000 inhabitants, and increasing. Object-I am a machinist and know nothing of laundry business. Outfit located in North Alabama. Address C. L. R., care Manuf'rs Record.

Wanted to Purchase! A Fifty Horse-Power Engine And Return Tubular Boiler

GOOD CONDITION. Addr. Hagerstown Manfg. Co., Hagerstown, Md.

WANTED.

A PARTNER to engage in machine shop in A PAKINER to engage in machine shop in a live, growing town in North Alabama, with rail and river facilities. No machine shop nearer than 100 miles. A practical machinist or blacksmith, or No. 1 business man with \$4,000 can find a good opening with a first-clast machinist and draughtsman, who has a few thousand dollars invested in Land, Buildings and Steam Plant, located in North Alabama. Address

C. L. R., Care Manufacturers' Record.

COAL and IRON

Properties located in the best fields of Alabama and Tennessee FOR SALE. Finest timber tracts in the South and West. Data furnished. Ask for what you need. CLARKE & BIBB,

BANKERS AND BROKERS, 18 Broadway, New York.

RING GARDEN METAL WORKS MANUFACTU SMALL METALLIC WARES

SMALL METALLIC WARES of every description. Patented Novelties, Clasps, Blanks, Metal Buttons, Buckles, Eyelets and all kinds of Dye Work in Sheet Metals. Brans Tubing Made any size or length, from one-inch hole to a size smaller than the eye of a needle. Estimates furnished for Special Articles in Metal. Gold, Silver, Copper Plating and Japanning. Dies and Punches made to order. 528 N. TENTH STREET, PHILADELPHIA, PA.



Joyce, Gridland & Co.

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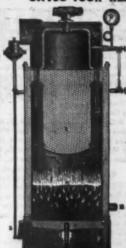
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Russey & Co. (Limited) 5 Russell & Co	E 4
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Salem Wire Nail Co Salisbury Mig. Co 3	
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mith & Vaile Mfg. Co 50	1
Southwark Foundry & Machine Co.	1
Spon, E. & F. N	1
pring Garden Metal Works 26	
Standard Lighting Co 96 Standard Steel Works 36	1
tandard Tool Co 2	1
tarr, B. F. & Co 40	1
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an Wagoner & Williams Co 44	1
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arfield Mfg. Co 40 arren Chemical & Mfg. Co 45	1
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V. R. SANTLEY & CO. Wellington, Ohi

THE SUN VAPOR LIGHT & STO



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Sweet's Patent Measuring Machine.



og Screw 10, 16 or so Threads to the inch,

IT WILL PAY YOU TO USE THIS MACHINE Upon COMMON WORK for the TIME it will save. Upon FINE WORK for the ACCU-RACY it will secure. It is the only Micrometer that will not lose its accuracy by use.

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Are the Best Water Wheels ever made.

A Good Water Wheel Increases The Value of Your Whole Plant.

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BOORS OR OUT-DOORS, where Paint is ever required. Because of its peculiar texture and elasticity, which allow it to expand and contract with the surface it covers witHOUT OURACH.

ING, it is especially adapted for use in either hot or cold climates. Send for particulars and prices. Pamphiet on "Paint and Method of Manufacture" sent free to any person requesting it.

J. WM. RICE. President and Genl. Mgr.

PROVIDENCE, R. I.

Priest Condition of the Name and Address. Name and Address. Geo. W. Brackenridge,
San Antonio, Texas....2—25 Young & Hack, Augusta, Ga..... 1885..Richmond & Alleghany R. R. Co., Richmond, V Richmend, Va... 1-12
San Antenio Water Works,
San Antenio, Texas....1-35
James Riddle & Sen, Wilmington, Del...2-35
z886...Roswell Mfg. Ca., Reswell, Ga..........-36
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Reedy River Factary, S. C....2-36
Jessup & Moore Paper Ca., Wilm'n, Del...1-40 ad, Va....1-10 Marietta Paper Mfg. Co., Marietta, Ga. 1-28 rham Water Works, Durham, N. C.... 96 Richmond Paper Mig. Co.,
Richmond, Va....r-ye Richmond, Va....z—y6

Augusta Electric Light Co., Augusta, Ga..o—y6

Petersburg Electric Light Co.,
Petersburg, Va...s—y9

J. N. Williamson, Gibsonville, N. C.....z—y9

Riverside Cotton Mills, Danville, Va...z—qe

C. J. Milse & Son, Wilmington, Del....z—qa

Forter Mig. Co., Clarkesville, Ga.....z—qa

If you want to buy a new water wheel, if your old wheel does not give absolute satisfaction, if you would like to know just how perfect a water wheel can be made, or if you are in any way interested in water wheels, it will pay you to write for CATALOGUE NO. 3 to the

HOLYOKE MACHINE CO.

WORCESTER, MASS.

New Single Action Arch Press.

The accompanying illustration represents one of the latest designs of single action presses put upon the market by E. W. Bliss Co., of Brooklyn, N. Y. It is specially adapted for operating sub presses in the manufacture of watch movements and other small work requiring consider-

The Hughes Steam Pump.

The Hughes Steam Pump Co., of Cleveland, Ohio, have just put a fine pump into the water works plant at Salisbury, Md. The accompanying illustration shows this pump, which has a capacity of 500,000 gallons a day. It worked very smoothly, giving entire satisfaction from the start.



NEW SINGLE ACTION ARCH PRESS.

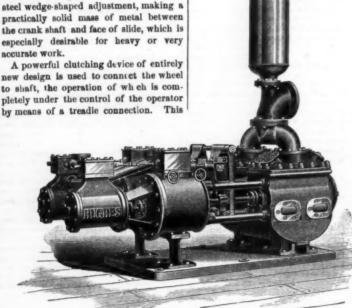
able power and great accuracy It may also be used in ordinary cutting, punching and forming operations within the range

of its capacity. The press frame is of the ordinary arch pattern, and the slide is provided with adjustable V-shaped gibbs to take up wear and keep slide working true. The special feature of the press is in the slide, which is made in two parts and connected with a steel wedge-shaped adjustment, making a practically solid mass of metal between the crank shaft and face of slide, which is

accurate work.

new design is used to connect the wheel to shaft, the operation of wh ch is completely under the control of the operator by means of a treadle connection. This

This company have put in several water works plants during the summer, some of them being as high as 3,500,000 gallons capacity a day, and have just closed con tracts for two more, which will be completed before cold weather. In a descrip tion of their pumps the Hughes Co. say:



THE HUGHES STEAM PUMP.

press is designated as No. 51, and its general dimensions are as follows: Width between uprights, 121 inches; opening in bed as desired; motion of slide from \(\) to 4 inches, according to the work; adjustment of slide 7-16 lnch; balance wheel, 34 inches diameter, 4\(\) inches face, weight 400 pounds; total weight of press, 1,400 pounds. For further particulars write to the manufacturers.

"The compound arrangement of steam cylinders for our improved duplex pumps is for the purpose of using steam expansively-the same as in a regular cut-off steam engine-thereby saving about one third of the steam necessary for a plain duplex pump. and consequently requiring less boiler capacity.

The steam, after use in the high pres-

sure steam cylinders, is expanded into the low pressure steam cylinders without complication of working parts or expensive valve gear.

Proprietors of large buildings, managers of public institu ions and officers of town and village water works will fully appreciate the advantages gained by the use of the compound system, as the saving in fuel will more than justify the additional first cost over the ordinary duplex pumps.

regarded by many manufacturers as the best traveler on the market

Perhaps one of the greatest features of this company is their composition twists travelers. They are now supplying many of the largest yarn mills in the country, and their trade in this department is constantly increasing. By the adoption of a special composition made exclusively for them, it being much tougher and harder than the ordinary, and, by a process of

C

F

C C CCCC

The pumps are made condensing by | using our independent condenser.

The steam cylinders of above pumps are proportioned to use steam at a pressure of not less than 40 lbs , and not exceeding 60 lbs., in order to secure the best economic results.

When it is desired to increase the water pressure, as in case of fire, etc., a branch pressure, as in case of fire, etc., a branch pipe from the regular steam connection should be made to the low cylinders, when pump is piped up. The valve on this connection can be opened sufficiently to give the amount of direct steam from boiler that may be necessary to secure the water pressure desired

The application of our independent a rump and condenser to the larger sizes of above pumps serves to increase their economy to a still higher degree, and also does

omy to a still higher degree, and also does away with the noise and nuisance of ateam exhausting into the atmosphere." Their catalogue of pumps will be found

of interest.

Cotton Mill Specialties.

The American Ring Traveler Co., of

manufacture known only to themselves, they guarantee their twister travelers to wesr longer and do more satisfactory work than any other sold. Manufacturers and spinners who are troubled by twisters stre ching out and flying off are especially invited to give them a trial.

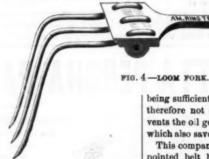
They also manufacture a wire tinned loom fork (see cut), which is not only very





cheap, but is also exceedingly durable, and is capable of being repaired in the mill Many of the largest concerns in the country have adopted this fork, and it is said to give entire satisfaction wherever tried.

The accompanying illustration represents their malleable iron spinning frame saddle with raw hide bearings. These bearings being of raw hide, the saddle has Providence, R. I., have just moved into the to be seldom oiled, one drop in two weeks



new and finely equipped Enterprise Building. No. 7 Eddy street, where, with a new and enlarged plant, they have the very best facilities for the manufacture of their specialties, and can turn out over 1,000,000 travelers per day besides their other specialties. They make in all its shapes and sizes the regular United States standard square pointed traveler, so generally used throughout the world. They guarantee the quality of these travelers in every particular, as they use nothing but the very best of stock, employ none but experienced

being sufficient to keep the rolls moist. It therefore not only saves the oil, but prevents the oil getting on the top roll cover, which also saves covering the rolls as often.

This company also manufacture the oval pointed belt hook, reed hooks, weaven' combs and all kinds of small wire specialties. They will be pleased to furnish samples of their goods for trial upon applica-

THE Nicholson File Co, of Providence, R. I., make over 2 000 styles of fine goods in their line, including the very fine class of small files used by jewelers, watchmakers, dentists, manicures, &c. These works have practically run the Swiss and English files from our markets. This is worthy of special mention in connection with the protective tariff, for in so doing they, with other file makers, have accomplished great good for



FIG. 5.—SPINNING FRAME SADDLE.

They are also the sole manufacturers of the Wilson patented round pointed traveler, which, for heavy work, they claim has no equal, as on account of the points being rounded it is much easier put on the ring, thereby allowing it to be tempered harder, insuring longer and more uniform wear on the ring. It secures a more even draught on the yarn and produces less friction, which, in order to obtain the same result, allows the use of a heavier traveler than could otherwise be used. The Wilson has een well and favorably known for many years, and to-day they are, it is said,

workmen, and spare no pains to have them of uniform temper and highly finished.

> all file users, the cost of files having been reduced about 50 per cent., while at the same time the manufacturers are paying double the wages to their workmen that are being paid to foreign mechanics in the same

> THE largest cotton press ever built at the vorks of the Scott Foundry & Machine Co., works of the Scott Foundry & Machine Co., Limi'ed, at Reading, Pa., was shipped to Brunswick, Ga., lately. The press weighs 230 tons, standing on a base 12x24 feet, con-necting with four links 38 feet long and est weighing 9 tons. One of the castings of the press weighs 25 tons.

Continental Iron

WEST AND GALYER STREETS, BROOKLYN, N. Y.

CORRUGATED FLUES

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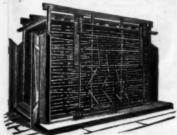
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CORRUGATED

on Fox, Leeds, Eng. Made in all sizes with flar

The **N**ew Noyes Lumber Dryer

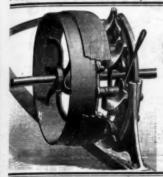


For Rapidly and Thoroughly Seasoning all kinds
Lumber Without Injury to the Wood. Has the following advantages over ordinary Dry Kims:
Requires One-Tenth the Time,
Costs One-Half to Operate,
Occupies One-Tenth the Space,
Saves One-Fifth more Lumber,
Does Not Check, Mar or Stain,
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The Only Onick, Economical and Perfect FIRE-PROOF LUMBER DRYER.

The only Drier which can be positively depended upon to make any kind of Hard Wood stay in place. In proportion to its capacity and effectiveness it is the cheapest Dry Kiln made.

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SUBSTITUTE Friction Clutches,

EFFICIENT, DURABLE and CHEAP.

Perfect Working Guaranteed.

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Shafting, Hangers, PULLEYS.

PULLEY CASTINGS

GEARING A Specialty.

Cleveland, Ohio. timates furnished. Write for Gear and Price-Lists A.



ESTABLISHED 1832 ON PRESENT PREMISES.

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Therefore **BUY OUR**

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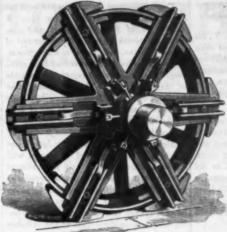
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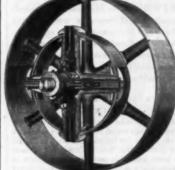
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LARGEST ELECTRIC LIGHT PLANTS

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-BELOIT, WIS.-

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Taper-Sleeve Wood-Belt Pulleys, Adjustable Dead Pulleys, Friction Clutch Pulleys, Friction Clutch Couplings, Wood Pulleys in Halves, Taper Sleeve and Compression Couplings, Shafting, Post and Drop Hangers.

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Consist of LOOPS, a BASE and a Top in the simplest form possible in any Radiator.

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which are heating 8,000 of the largest and finest buildings in the country, which should prove beyond a doubt that the BUNDY RADIATOR is the best made.

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GRIFFING IRON CO.

662 Communipaw Avenue, Jersey City, N. J.

TRADE NOTES.

CAFFIN & LEIGHTON, Syracuse, N. Y., are doing a nice business in the line of their machinist's improved steel scales—every one warranted. Send your address if a mechanic or draftsman, and get a fac simile on a card, with prices for all sizes from 2 inches to 36 inches.

THE Caldwell sash balance, manufactured at Rochester, N. Y., by Wm. H. Caldwell, is having immense sales. It is cheaper and better in every way than weights and cords, and is especially adapted for brick or old houses, as no boxes or pockets in the frame are necessary. They are also adapted to lift doors and show cases. Made in all sizes. Architects, builders and the hardware trade should investigate.

WE call attention to the advertisement of the Williamsport Wire Rope Co., of Williamsport, Pa., in this issue. This enterprising concern manufactures a complete line of wire rope, cables and specialties, including locomotive switching ropes, hook and thimble, hook and socket and sister hooks, etc., all set forth in a neat little catalogue giving valuable tables and information. Correspondence is especially solicited with coal mines and quarry companies and with manufacturing enterprises using wire ropes for transmission.

THE demand for the Richards oil engine, manufactured by the Binghamton Hydraulic Power Co., Binghamton, N. Y., has become so great that this enterprising concern is erecting a large foundry and machine shop and otherwise enlarging their facilities for supplying the demand. The Richards oil engine has no boiler, no steam and requires no engineer; always ready and clean, and is started by a match. The fuel is crude petroleum or kerosene, and the rate of consumption is one-fifth of a gallon per hour for every horse-power.

HOWARD & BURDEN, Cleveland, O., are owners of a patent heater, designed for street cars and small apartments, that is attracting not a little attention. The heater is 9 inches wide, 24 inches in length and 26 inches high. It is portable and weighs only 30 pounds. It burns coal oil, the combustion being perfect, and costs not to exceed 15 cents per day. They are neat, clean and safe, and possess the merit of being the cheapest thing in the market. Messrs. Howard & Burden are offering the right and exclusive Southern territory for sale.

THE Gorton & Lidgerwood Co., 96 Liberty street, New York city, have lately received an order for four large boilers to be used in heating a large building, 60x200 feet, and three stories in height, in the Brooklyn navy-vard. When these boilers are set. there will be six of the Gorton boilers in use in the navy-yard, one of which has been in use three winters, giving entire satisfaction during that time, as the following taken from a letter dated May 2, 1888, to the Gorton & Lidgerwood Co., from Chief Civil Engineer P. C. Asserson, will show: reply to your inquiry, I would state that the No. 5 steam generator furnished and put up by Mr. Gorton in this navy-yard, in 1885, has given good satisfaction, and has been in continual use the past three winters for heating an isolated building of 75,000 cubic feet of space. It is economical in the use of fuel-less than one-half the amount of coal being needed than was previously used to supply the horisontal tubular boiler used for this purpose. It requires very little attention, as the automatic arrrangements, both for fuel and water-feed, work well. We have recently put up a No. 4 Gorton boiler in a large building in this yard, as we prefer this boiler to any other method of heating by steam." The four new boilers will be fi.ted up with a new base having a standing lever shaking attachment to the

An improvement in bobbins has been recently made by the Fall River Spool & Bobbin Co. of Fall River, Mass, and consists of a device by which the lower end of filling bobbins, with inside shuttle grooves, are inflexibly held and prevented from splitting, flattening or other injury from outside or inside pressure. This is accomplished by means of a turned ferrule following closely the contour and shape of lower end of bobbin and extending up into the opening inside to the shuttle groove, where it is turned at right angles from its course lengthwise the bobbin, and expanded to form a wall for the shuttle groove. This improvement is entirely new, and has been introduced and tried only in their own vicinity, among some of the mills of Fall River, and in all cases it proved very satisfactory, its life being about three times that of the ordinary bobbin. The O.born Mill, of that city, has now in use nearly 100 000. To be appreciated they must be tried.

THE Williamsport Machine Co, Limited, manufacturers of improved wood-working machinery at Williamsport, Pa., are in receipt of the following very flattering letter, coming unsolicited from a well-known Pennsylvania establishment manufacturing sash, doors, mouldings, balusters, etc:

MARTINSBURG,
BLAIR COUNTY, PA., August 25 1888. }
WILLIAMSPORT MACHINE CO., L mited:

GENTLEMEN—In sending remittance for machinery purchased from you, we desire to express our envire satisfaction with each and every piece. Our firm is composed of men who have had wide and long experience in the practical use of wood-working machinery of various kinds and makes, and we are unanimously of the opinion that for sim plicity of construction, rapidity and accuracy of working and general superiority, the machines furnished us by your company are not excelled anywhere. We cheerfully bear our unsolicited testimony to their excellence, after having given them thirty days' steady, and in some cases severe, trial.

Yours very truly, BOLGER, GRAFFINS & Co.

The Williamsport Machine Co. desire us to correct our statement in last issue regarding the connection of Robert Easton with their company, and say that the gentleman in question was not their superintendent or foreman, and did not invent any of their (Williamsport Machine Co's) wood-working mach'nes.

THE Babcock & Wilcox Co., of New York, are having a very large demand for their patent water tube steam boilers, and report the following sales for September:

ler & Roberts Wire Co., Limited, Pitts-gh, Pa., 4th order...... tric Light & Power Co., Melbourne, Australia...
ansas City Electric Light & Power Co., Kansas City, Mo., 2d order...
ouis Franke & Co., for F. S. Dale, Whitehall,
N. Y., 2d order...
rovidence Steam & Gas Pipe Co., Providence,
I Providence Steam & Gas Pipe Co., Providence, R. I.

Farmer & Brandon, London, Eng.

Moet & Chandon, Epernay, France
F. de la Royere Masureil, Brussels, Belgium.

Alex. B. Bary, Moscow, Russia.

Cocieta Amoniana Raffineria de Zuccheri, Ancona, Italy, 2d order.

Excelsior Electric Co., for S. Wechsler & Co.,

Brooklyn, N. Y.

Jackson & Sharp Co., Wilmington, Del., 4th

order. & Sharp Co., Wilmington, Del., 5th er Sulzer, Winterhur, Germany.... Fontaine, La Madeleine lez Lille, B. Cottrell & Sons, Westerly, R. I., ad order rtland Wagon Co., Certland, N. Y., ad or 104 der.... oreckels Sugar Refining Co., Philadelphia ria de Aguas Subi Concessonaria de Capet Co., Yonkers, N. , 6th order dad Mahiteuse de Electricidad, Madrid, 184 Spain... ew York Life Insurance Co., Omaha Build-Making the total sales for September 16,



Stonewall Cotton Gins, FEEDERS and CONDENSERS.

Guaranteed best made and fully warranted.
Write for circulars and discounts.

S. R. WHITE & BRO.

NORFOLK, VA

The Wood Cotton Gin.



For Ginning Sea Island and other Long Staple varieties.

It does the work rapi ly and without breakng the staple We back our recommendations with a warrantee.

JOHN HEATHCOTE,

Sole Manufacturer,

Corner Eddy and Friendship Streets

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HILLARD & GOLDSMITH PATENT.



The only successful machine in the world for pick-

The Fall River Speel & Bobbin Co. of Fall River, mass.

SPOOLS AND BOBBINS

BOBBINS

SPOOLS,

Manufactured by

John L. Cheney & Co.

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PROMPT DELIVERY.

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Made of galvanized iron and copper. Strong upward draft. Exhausts foul air, doors, gases, stean, etc, from mills, stores and dwellings; cures smoky chimneys. Perfectly storm-proof. Galvanized iron and copper cornices and gutteral Sheet metal work for buildings. Send for illustrated

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Phoenix UTOMATIC Filters.

Tracy's Patent.

This filter will clean any oil, no matter what the oil may contain. When drawn from the filter the oil will be cleaner than when drawn from the original barrel.

Hundreds of testimonials furnished if required.

Address,

Salisbury Mfg. Go. PROVIDENCE, R. I.

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PORTLAND CEMENT.

German and English Brands of Best Quality.

Send for tests and all particulars to ERSKINE W. FISHER, WELLES BUILDING, No. 18 Broadway, NEW YORK



J. W. LOANE,
Flags, Awnings, Tents, &c.

Dealer in POLITICAL CAMPAIGN GOODS.

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DIEEN UBRICANT—Wanted a good home in every city and town to handle our Lubricant.
Our goods have been well introduced.
EUREKA MFG. CO.
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The VICTOR TURBIN

Possesses more than Double the Capacity of other Water Wheels of 18.06 17.36 same diameter, and has produced the Best Results on Record, as shown in the Following Tests at Holyoke Testing Flume:

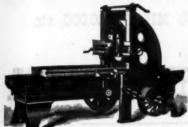
WITH PROPORTIONATELY HIGH EFFICIENCY AT PART-GATE.

Such results, together with its nicely-working gate, and simple, strong and durable construction, should favorably recommend it to the attention of ALL discriminating purchasers. These wheels are of very Superior Workmanship and Finish, and of the Best Material. THE VICTOR WHEEL IS PARTICULARLY ADAPTED TO SETTING ON

HORIZONTAL SHAFT, Disponsing Entirely STILWELL & BIERCE MFG. COMPANY

DAYTON, OHIO, U.S. A.

Nachine Tools,



ENGINE LATHES. Iron Planers, Upright Drills,

MILLING MACHINES,

Bolt Cutting Machines,

Special Railroad Tools, &c.

Oliver Street, BOSTON, MASS.

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Engine Lathes, Planers, Chucking Lathes, Hand Lathes,

MACHINE TOOLS GENERALLY .ATHE&MORSETOOLCO.

Worcester, Mass., U. S. A.



17, 24 & 27-INCH **Engine Lathes**

THE MULLER MACHINE TOOL CO. Sth and Evans Streets,

Foot Fower Machinery.



applied to Lathes. Read a "Ido not see how your lather relocipcie foot-power is sin und feel as little tired as the the videripade foot-power, "I sat at the laths for II had jipes. Those who saw it do shop," "Using the velociped had not good to the work." " he heavises, give me the we

BRADLEY'S UPRIGHT CUSHIONED & HEATING FORGES HELVE HAMMER With a manufacturing experience of over half a century,

we recommend these ma-chines to be the best, simp-lest, most durable and com-bining all the essential elements

BRADLEY AND COMPANY, SYRACUSE NEW YORK PALMER, CUNNINCHAM & CO., Limited.

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KEARNEY & FOOT FILES.

DOTES FOR Railroad Supplies CHANICS CHUCKS,

SCREW PLATES,

607 Market Street, PHILADELPHIA

CURTIS & CURTIS.

s to FORBES & CURTIS

61 Garden Street, Bridgeport, Conn.

PIPE CUTTING AND THREADING MACHINES, &c. For hand or power.

A Portable Cutting and Threading Machine, with which me man can with ease thread pipe up to six inches diameter.

NO VISE REQUIRED. SEND FOR ILLUSTRATED CATALOGUE

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MANUFACTURERS OF THE ORIGINAL



Pipe Cutting and

Threading Machine.
BEWARE OF IMITATIONS.
me genuine without our Trade
Mark and name. Also

Patent Wheel Pipe Cutter STEAM AND GAS FITTERS'

Pipe Cutting and Threading Machine For Pipe Mill Use a Specialty. Send for Catalogue B.

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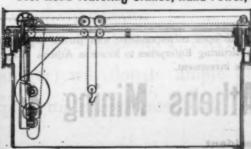
Sebastian, May & Co.'s Improved Screw Cutting

Drill Presses, Shapers, Band, Circular an Sawa, Machinists' Tools and Supplies. on trial. Catalogue mailed on applicat



PHENIX IRON WORKS, Cleveland, Ohio,

Over-Head Traveling Cranes, Hand-Power, Steam & Hydraulic.



Design Cranes for any and Every Duty.

Correspondence solicit-ed with Foundries, Pipe Works and Mills who desire labor-saving applianfurnished on all sorts of special and labor-saving machinery.

ATHENS, East Tennessee,

THE COMING

→ Iron and Manufacturing City of the South. ←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES. The surrounding scenery is very fine. From the main avenue the whole valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the tallest peaks east of the Rockies being in full view. Fine Mineral Springs are adjacent and are popular summer resorts. The society of Athens is excellent. A cordial welcome is extended to all law-abiding people locating in the town. The Educational Facilities are good. Beside public and preparatory schools, Athens is the seat of THE GRANT MEMORIAL UNIVERSITY, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000. THE ATHENS WOOLEN MILLS, \$100,000.

THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.

FOUNDRY & MACHINE SHOPS, \$25,000.

FURNITURE WORKS, \$15,000.

FLOURING MILLS, \$20,000, etc.

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500 men are now at work on the new railroad from Athens to the

RICHEST IRON FIELDS IN THE SOUTH

JUST EAST OF THE TOWN.

Only eight miles from Athens are VEINS OF RED FOSSILIFEROUS ORE 111 FEET THICK, and 4 to 12 miles beyond are THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Atheis UNSURPASSED SHIPPING FACILITIES. The road under construction will penetrate large deposits of Tennessee Variegated Marble; also an Unopened Timbered Region, and will develop the

Largest Colored Slate Deposits in the United States.

These quarries are now being opened, and are pronounced by experts Absolutely Inexhaustible, and equal in quality to the finest Vermont Colored Slate.

The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

\$500,000 IN NEW MANUFACTURING ENTERPRISES

At Athens, including a 100 ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150.000; Furniture Works, employing 200 men, cost \$100,000; Hotel, cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

\$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites in order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices is beyond question a very fine investment.

The Athens Mining & Manufacturing Company,

R. L. BRIGHT, President

R. J. FISHER, Secy. and Geni. Manager,

ROME, GA.

OF all the growing cities in the growing South, Rome presents the greatest opening for money-making investments. With surrounding fields as rich as the lands of Goshen, with exhaustless deposits of brown and red Iron Ores and Manganese immediately at hand on all sides, with mountains of Marble and Limestone coming right up to the city, with an abundance of the best Coal easy of access, areas of untouched forests, and with seven railroad outlets and two navigable rivers, Rome stands, in natural advantages, pre-eminently above any other proud and pretentious city within the limits of this proud and ambitious commonwealth.

THE HEALTH OF ROME IS UNSURPASSED.

THE UNUSUALLY LOW DEATH RATE IS A PHENOMENON,
STANDING WITHOUT A PEER AT 8.40 PER THOUSAND.

NOT ONE CASE OF CATARRH OR CONSUMPTION EXISTS OR
EVER ORIGINATED WITHIN HER LIMITS.

Rome has 12,000 inhabitants, has invested in colleges and school buildings about \$300,000; in church building over \$100,000; in her new hotel \$125,000; in the dummy line, just completed, over \$50,000. Her manufactories employ 800 hands, with other enterprises now going up. Her system of water-works and sewerage is unsurpassed. The city is lighted with gas, and negotiations for an electric light plant are now pending. The highways leading to the city are all well macadamized. The Post-office Department has recently made Rome a free postal delivery office. The annual business of the city is about \$12,000,000, with the trade constantly increasing. The yearly range of temperature at Rome, between the average highest and lowest, is about 84 degrees; the mean temperature is 60.6 degrees. About seven months intervene between the first and the last killing frosts of the year. There is no better society to be found anywhere.

The Rome Land Company (J. W. Rounsaville, President, T. F. Howell, Treasurer, and J. L. Bass, Secretary and Business Manager) will donate ample grounds to, and otherwise aid, any worthy manufacturing enterprise that may locate here.

Send for circulars and pamphlets.

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HOOPES & TOWNSEND



MACHINE AND CAR BOLTS. KEYSTONE BOILER RIVETS.

MADE IN SOLID DIES.

COLD PUNCHED. CHAMFERED, TRIMMED & DRILLED SQUARE & HEXAGON NUTS.

Split and Single [Keys.

WASHERS. Tank and Coopers' RIVETS.

PHILADELPHIA, PA.



RICHMOND, VA.

Standard and Narrow-Gauge, for for every variety of service. Pole Road Locomotives and Cars, the only successful device of the kind made.

Stationary and Portable

12 to 300 Horse-Power.

Standard and Special, 12 to 300 horse-power.

Gas, Water, Creosoting and other heavy machinery. Catalogues, specifications, photographs and estimates furnished on application.

STEEL RAILS

PENNSYLVANIA

Standard Sections **Light Sections** Street Rails Fish Plates,

Frogs, Switches

STEPHEN W. BALDWIN SALES AGENT

STEEL COMPANY

50 to 80 lbs. per yard " 45 " ,, 88 Bolts & Nuts, and Crossings.

> NO.2 WALL STREET NEW YORK N.Y.

16 lbs. Full Size.

BUCYRUS FOUNDRY & MFG. CO. BUCYRUS, OHIO. Builders of-Steam Shovels, Steam Dredges, WRECKING CARS.

DETROIT, MICH.

MANUPACTORING

Whiting's Improved Car-Wheel Foundry Plant, Improved Cupola, Improved Overhead Steam Crane, Improved Car-Wheel Chilis, Improved Transfer Trucks, Improved Device for Operating Foundry Ladles, Improved **Reversible Friction Gearing**

Steam and Power Cranes Castings of all Descriptions, Ladles, &c.



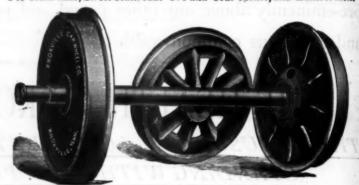
The STANDARD Steel Works.

Locomotive and Car Wheel TIRES.

OFFICE: 220 SOUTH FOURTH ST.

KNOXVILLE, TENN

For Railroads, Street Railroad. Ore and Coal Mines, and Lumbermen,



Steam Hammers, Steam Hoists, Foundry Cupolas, Derricks; Crabs, Horse Powers. Shieves, Drill Heads, Gearing, Pulleys, Bolts of all sizes. Locomotives and Engines

Repaired and Indicated,

CORRESPONDENCE SOLICITED.

Steel and Iron Boilers, Guild's Automatic Boiler Cleaner. Car and Locomotive Castings, Soft Iron Castings of all kinds, Heavy Castings a specialty. Wheels mounted on Axles if desired, with Oil Boxes and Bolts.

MENTION THIS PAPER,

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Part have mill of what good of interes both a cular

Titte engine all kin Hill clube with and are entire a new on position prompts



FOUNDRY EQUIPMENT CO. Railway, Mining and Furnace Supplies,

PIG IRON, COAL AND COKE.

G. HERBERT ELLERBE, MINNIGERODE & ELLERBE. BIRMINGHAM, ALA.

FOR THE LATEST IMPROVED

GAS WORKS APPARATUS AND HOLDERS

ADDRE

KERR-MURRAY MANUFACTURING CO., FORT WAYNE, IND. PLANS, ESTIMATES AND DRAWINGS FURNISHED.

TRADE NOTES.

THE Herendeen Manufacturing Co., Genevs. N. Y., present the trade a new cata-news on steam heaters. Their specialties are finely illustrated and described.

T. WILLIAM HARRIS & Co., 44 Broadway, New York, have been awarded the contract for extending the Dobbs Ferry and Hastings gas works. New pipes will be laid at both Dobbs Ferry and Hastings.

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THE celebrated Gorton house-heating silers, manufactured by the Gorton & Lidgerwood Manufacturing Co., New York, are meeting with much favor abroad. The spany lately shipped two No. 1 boilers to es Convent, Havre, France,

THE Lovell Washer Co., Erie, Pa., in a sest catalogue, illustrate and describe a sumber of their specialties, among which we find the Lovell washer. Many testimoto do excellent work and greatly save labor.

THE Geo. G. McLaughlin Manufacturing n, Mass., contractors for complete power plants and manufacturers of automatic and slide valve engines, report a large d for their specialties. In a recent letter they say: "We are compelled to keep two sets of men at work day and night in eder to fill our orders.

THOSE wishing to become informed as to steam pumping machinery should send to the Dean Brothers Steam Pump Works, Indisnapolis, Ind., for catalogue No. 16, which they have recently issued. In that catalogue are illustrated and described steam pumpi for every kind of service, and much valuable as to size and price are given.

THE United States Mineral Wool Co., of New York, have lately filled contracts fr the Atlanta Automatic Refrigerating Co. Atlanta, Ga., and Macon Refrigerating Co., Macon, Ga., for mineral wool, to be us filing the floors and walls of the buildings occupied by them; also for deadening the floors of the Masy Willis Library, at Washington, Ga.

FRANK & Co., of Buffalo, N. Y., are one of the wood-working machinery concerns who find themselves unusually busy at this season of the year. They are running extra time, and are having all they can do to fill orders. The display of Messrs, Frank & Co. at the Buffalo International Exposition one of the largest and most complete of my exposition in the country.

PETER GERLACH & Co., Cleveland, Ohio, have recently issued a circular addressed to mill owners and sawyers, calling attention to what is necessary in the production of a good circular saw, and giving many points of interest as to how a circular saw should be both made and used. Though short, the circalar contains much that will prove useful to lumbermen and others using mill saws.

PIERCE, BUTLER & PIERCE, Syracuse, N. Y., in a 66-page catalogue, describe and handsomely illustrate the Florida steam hester. As this heater is adapted to the use of private residences in city or country. ls, stores, schools, churches, clubhouses, theatres, apartment houses, manufactories, business blocks and public buildings, those rested would do well to obtain a copy.

THE Hill Clutch Works, of Cleveland, O., engineers and designers of power plants of all kinds, and whose specialty is the famous Hill clutch, have found their present facilities wholly inadequate for their business, and are now remodeling and enlarging their mile works, putting in new machinery and a new engine and boiler, and expect to be in on shortly to meet all demands

E. KEELER & Co., Williamsport, Pa., ake a specialty of high-class work in steam boilers, stacks, &c. Around Williamsport, where they are well and favorably known, they secure many very large contracts, and their excellent work is often compliment-ed. New Southern enterprises desiring the best will find a superior article, though costing a trifle more, in the boilers manufactured

THE pamphlet of the Domestic Fire Engine & Pump Co., of Washington, D. C., contains a full description of the Morrill improved barrel fire engine and bucket force pump. This ingenious device combine simplicity, durability and cheapness, and as a fire extinguisher for town or village, farm or ranch, should be very valuable. Those interested should write for a copy of this interesting pamphlet.

CATALOGUE No. 6 of the Clayton Air Compressor Works, office No. 43 Dey street, New York city, contains much information of value respecting compressed air power. It is claimed that this power is applicable for working any machine that can be run by steam, and that for running rock drills, coal cutters, hoisting engines and water pump underground, in mines, shafts and tunnels, it has innumerable advantages. A full line of air compressors, steam pumps, pneumati boilers, &c., are also illustrated and described in this catalogue.

ALL who may be interested in the purchase of iron-working machine tools and machine shop supplies should examine the catalogue of Hill, Clarke & Co., Boston, This catalogue contains 412 pages and is replete with illustrations and available facts. The illustrations are exceedingly ome, being printed on tinted paper, and they embrace nearly every kind of ma chinery necessary to the thorough equipment of a machine shop. This valuable catalogue should be in the hands of all proprietors and projectors of machine shops

In these times of labor saving the polishing of wood has been given the attention i rves, so that now no well-equipped factory is complete without a sand papering machine. The Egan Co., of Cincinnati O., U. S. A., are now building the largest line of special machines for polishing wood to a fine surface than any concern in the world. Their various machines for sand-papering are marvels of ingenuity and simplicity. They invite correspondence from any one interested in having a superior finish given to their work, as this enterprising concern is prepared to furnish machines for polishing any shape or kind of stuff.

THE foundry and machinery department of the Harrisburg (Pa.) Car Works report a good business for the "Ide engine" and their celebrated patent boiler and furnace settings. The "Ide engine" is famous for ose regulation. A change of speed not to exceed one per cent. is guaranteed by its manufacturers, thus making it a most desirable engine for electric lighting, cotton mills, etc. One can be seen at the Augusta Industrial Exposition. This department of the car works make a specialty of equipping complete power plants, and solicit ndence relative to all classes of such work. Special attention given to Southern business, and plans and estimates furnished to those who apply.

EXTRACT FROM NORTHWESTERN LUMBER-MAN, CHICAGO,-Southern gum has been experimented with in the matter of drying more, and studied more, in this office than any other kind of wood, and out of many we have never had but one sample that stood the test. Samples of ordinary air-dried lumber that knoweth not how to warp have been promised, but they have not come to light. There is a way, practiced by a few, of sawing lumber thick to start with; and then when dry re-sawing it; but this is a roundabout way of getting at the desired result, although the ones who do it think it pays. The sample to which we referred that acted like a "white man" was dried by the "Noyes" process. It has now been lying around for several months, but it is as plumb as it was the day it was brought into the office. The Noyes lumber dryer is manufactured by A. H. Andrews & Co.,

Important.

When visiting New York city, save bag gage express and carriage hire, and stop s the Grand Union Hotel, opposite Gran

the Grand Union Hotel, opposite Grand Central Depot.
600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern conveniences.
Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first-class hotel in the city.

THE American House, Boston, needs no recommendation to the generality of travel-ers, but it may not be amiss to imform those who are contemplating their first visit to the "Hub" that no hotel in the city is better than the "American". It is conveniently located to all lines of travel as well as the business portion of the city, and no effort is spared to maintain the high rank the house has held as long. s held so long.

THE Palace Hotel, Cincinnati, Ohio, is said to enjoy the reputation of being the best \$2 hotel in America. 250 rooms; 140 front rooms. All conveniences and excellent cuisine.



- FOR THE BEST -

BOILER COMPOUND.

THE INTERNATIONAL MFG. CO. 280 Pearl St., CLEVELAND, OHIO.

E Chamberlin Cartridge Co. CLEVELAND, OHIO.

The Only Perfect Ammunition

FOR BREECH-LOADING SHOT OURS. crated Pamphlets free to Sportsmen an Hardware Trade upon application.



BOOKS Relating to Mechanical, Mining and Electrical Engineering. Proscriptive Catalogue and information about any book

E. & F. N. SPON

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Scientific and Industrial Works.

Sand for Catalogues and Circulars-Free by m



is Wheel is strong and durall other wheels in the great Is in use all over the n reat trial tests.

Heavy Gearing and Machinery for Paper, Cotton

S. MORGAN SMITH YORK, PA.





For the Latest Improved FAST FEEDING

Planing Mill Machinery,

Preble Machine Works Co.,

CHICAGO, ILL.



ENGINE

Until you have seen our circulars. Engines confrom 5 to 110 horse power, both Vertical and sontal, at prices below those of other reputable ors. 1400 in use. Boliers of overy style. matic Engines for Electric Lights. Contr. Pumping Machinery for Drainage or Irrig. Established as years. Perfect satisfaction gu tood. Ask for Circular M and address

Morris Machine Works.

BALDWIESVILLE, B. T.



бне Факкель.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, October 10, 1888. Everything seems favorable for a heavy

fall and winter business. With good crops and profitable prices for them, the farmers will be in even a better condition than last year. Manufacturing interests are fully employed, and mills, factories and furnaces re all making money.

Manufactured iron shows no increase in

the volume of trade, and prices remain as last quoted, viz.: Ref. Bar Iron, z to 6x36 to z \$ 10. z.95@ s.:

Mar. Das aron, a to cays to account	2000	****	M1400
1 (0 4782178 (0 1	44	1.95	S.IOC
" " % to s, round and			
square	68	x.950	9.160
Hoop Iron, 11/2 wide and upward	66	2.400	2.500
Band Iron, from 1% to 6 in, wide	44	9.40	8.500
Horseshoe Iron	66	2 X G	3 C
Nerway Nail Rods	66	- 0	4%C
Black Diamond Cast Steel	66	8560	9 6
Machinery Steel	68	1 .	436C
Spring Steel	66	1 0	4 0
Common Horse Nails	86	1 4	0 0
Railread Spikes, 51/x9-16	66	8.10	3%c
Steel Boiler Plate	as	286	4 6
Iron Boiler Plate	0.2	.46	4 6
Boiler Tubes	8	2145 06	Hint.
		-/-/-	

The pig iron market is about the same as reported last week, there being a fair degree of activity, and the consumption keeps well up with production. Under the rumor of a new pool in the steel rail business, prices omewhat stiffened up, and are nominally held firm at \$29 per ton. We quote:

Virginia C. B. Charcoal Wheel Iron a8 oo		
Anthracite, No. 1 18 00	@20	00
et # 8 17 00		
" 3	6 16	00
Mottled and White 14 00		
Steel Rails #8 00	@20	00
Uld Rails 93 03	6 24	00
Old Steel Rails so oo	221	00
No. z Wrought Scrap 22 00	322	50
Old Car Wheels 18 00	919	60

HARDWARE.

The condition of the hardware mark remains unchanged. P.ices are being held firm, with no changes since our last issue. Owing to the quarantine regulations, intercourse with the lower Southern sections is restricted, and very little business is being transacted. Elsewhere, however, trade is considered very yood.

The prices of nails are the same as last quoted: \$1.90 to \$2.

Philadelphia Iron Market.

PHILADELPHIA, Oct. 9, 1888. The iron trade, so far as crude iron is con cerned, presents a quieter appearance. Prices are nominally higher. Small sales are made at this advance. Choice brands of all kinds are hard to get. Some Western Ohio irons are coming in here at \$19 to \$19 50 for mixing purposes. Average No. 1 is selling at \$18.50. Large buyers purchased just in time to save the advance; but it is safe to say the advance would not have taken place but that they bought so largely as they did. Stove founders have bought largely, and No. 2 is now commanding Pig iron makers generally are hoping that the present improvement will continue until the close of the year in order that they may sell iron in the first quarter of next year at the present marked up prices. Forge iron is dull because most mills have bought all they care to for the present. Still, seldom a day passes without hearing of the sale of a 1,000-ton lot being taken. There has been a great deal of skelp iron sold within a few days, and it is worth from 4.85c. to 1.90c. The contracts that have given out recently have brought a many buyers into the market for bar iron. Large sales were made week, and more business will be

done this week at 1.80c. Refined iron

brings 1,00c,; the same makers are asking 2

cents. Nails have suddenly gone up in

prices, and in response to an unexpected demand; quotations \$1.90. The pipe and tube makers have gathered in considerable

business, and all concessions have been withdrawn. There is no change in prices

for plate, tank or structural iron, and the

situation remains about-as it has been, A large number of orders for sheet iron are now coming in, many of them from stove founders. The merchant steel makers report a continued demand and steady prices. Steel rails are quoted at \$28 to \$29. Pennsylvania mills have not been doing much usiness. It is intimated that some large orders are now likely to be placed. Foreign material is dull. American Bessemer is in good demand. A good many old rails have been sold by railroad managers in the South, and they will be exchanged for new steel rails. Scrap sells all the way from \$21 to \$23, according to quantity and quality. Muck bars have advanced to \$30, though where quality is not particularly specified, orders can be filled at a little less.

Cincinnati Iron Market Report.

cially reported by Rogens, Brown & Co., Pig CINCINNATI, Oct. 8, 1888.

The market has been firm but quiet during the week past. It is not expected by leading sellers that there will be much buying prior to the Presidential election beyond what foundries and mills may require immediate wants. There is a general dis-position to wait and see what will be the result of the great contest over tariff. The rising market in grains, provisions and stocks indicate strength in the general situation, and it is hardly thought possible that the lines of manufacturing calling for iron can fail to feel the general stimulus. Shipments are going forward very heavily, but there are few furnaces that are fully keeping up with their orders. We quote for cash f. o. b. Cincinnati:

Ohio and	Southern	Strong	Coke	No.	I \$	17	50@18	50
64	84	+6	88	No.		16	50017	50
66	44	68	44	No.	236	22	500 16	60
Ohio Soft	Stonecoa	i,		No.	Acc :	17	00017	50
Onio Son	Stonecon	il.		No.	B 1	15	50016	00
Mahoning	and She	mango	Valle	y Co	ke,	17	50@x8	50
Hanging	Rock Cha							
a	66	es 1	lo. s.		1	Q1	50(g) as	00
Tennessee	& Alaba	ma Chi	arcoal	No.	X 1	18	500010	50
66	86		66	No.	S 1	17	50@18	00
			OBSE.				-	
Strong No	nutral Col				\$1	14	75015	00
Mottled					1	13	75 34	00
Cold Shor	tnings	******	*****		*** 1	14	53@14	75
	CAR WH	EEL AN	ED MA	LEE	ASLE			
Southern	Car-When	Iron.			2	10	00@25	00
Hanging !	KOCK COL	d Blast			9	13	00@25	00
Lake Sup	erior C. W	and l	Maller	able.	5	E	00@22	00

Louisville Iron Market.

lly reported by Gao, H. HULL & Co., Com-on Merchants for the sale of Hot and Cold

LOUISVILLE, KY., Oct. 8, 1888.

The market for the past week has been quiet, and orders have been scarce. Prices are firm, and buyers have been compelled to buy at the recent advance. The outlook at present is for a slight advance, and if their is much of a demand it may be easily obtained. Old rails at present remain firm at \$24; wheels at \$21. We quote:

				IRC					
Southern	Cok	e, No.	z Fo	unda	y		\$17	0001	8 00
- 66	**	66		44			16	0001	6 50
66	44	68	236	.01			35	50001	6 00
Hanging	Roc	k Coke	, No	LIF	ound	rv	37	25 T	7 75
**	44	Char	coal,	No.	I Fou	indry	SI	00@2	3 35
Southern	Cha	rcoal,	No.	For	indry		18	0001	8 50
Silver Gr	ay, d	lifferen	t gre	ides.			34	50@1	5 25
Southern	Cok	e, No.	I M	III, N	eutra	å	34	75@1	5 25
**	- 04	46			68		13	75@X	4 75
**	**	- 05		C	old S	hort.	14	25 1	4 75
Southern	Cha	rcoal,	No. 1	: Mil	1		25	75(61	5 40
White an	d Mo	ottled,	diffe	rent	grade	B	33	5001	3 73
Southern	Car	Wheel	Sinz	sdaro	i bran	ds	93	0000	00
44	66	46	oth	er b	rands		19	2500	25
Hanging	Rock	r Cold	Bias	t			92	arma:	200
a	66	WAZE	8 65	****		****	19	35@20	25
Carala Na			- 17		Danie	-		-	-

ly reported by Hall BROTHERS & Co., Pig Iron Commission. Louisville, Ky., Oct. 8, 1888.

There is a fair number of orders being placed, mostly for scattered deliveries. Prices remain firm. Some furnaces have advanced slightly over their recent quotations, but buyers have not felt disposed to accept any increase in price. A few round orders have been closed at current prices. We continue to quote cash f. o. b. cars at Louisville:

							IRON			
Southern	Coke,									
44	44	44	B					16	50@17	00
44	48	40	236					16	00@16	50
Mahoning	g Vaile	y, La	ke	ore	mi	xtu	ire	20	500001	00
Southern	Charce	al, N	io.	X				18	81000	50
66	- 68		18					17	00@17	80
Missouri	44		18	x				10	50000	00
- 44			16	3				19	00@19	50

	FORGE IRONS.	
	Neutral Coke \$14 75@15 1	13
į	Cold Short 14 25@14	73
Į	Mottled 12 75@13	/3
	CAR WHEEL AND MALLEABLE IRONS.	
Į	Southern (standard brands)	×
ı	" (other brands) 18 00@18 5	90
ı	Lake Superier 21 50@22 5	ģ
١		

St. Louis Iron Market.

y reported by Rogers, Brown & Co., Gay ng, soq N. 3rd street, St. Louis, W. H.

ST. LOUIS, Oct. 8, 1888.

There is a fair volume of business going, and some leading buyers talk of making further purchases soon. The demand is principally for Southern foundry iron and Ohio softeners. Lake Superior charcoal iron for car wheels is also in fair request.

The car works are feeling the effect of a more liberal demand for rolling stock from the railroads. The fair has somewhat interfered with the regular run of business during

CHARCOAL FOUNDRY.
Southern No. 1 \$18 50 829 50
Southern No. 8 18 00(\$19 00
* 1880ur No. 1 17 00@18 00
Missouri No. 2 16 50 \$17 50
COAL AND CORE IR. HS.
Southern No. a Foundry 17 00@18 00
Ohio Softeners 18 co@ex co
MILL IRONS.
Southern No. 1 15 00@16 50
Southern No. 8 15 90@16 00
Missouri 16 00@16 50
CAR-WHEEL AND MALLEABLE IRON.
Southern 29 00@24 00
Lake Superior so 50@sz 50
Connellsville Coke, (East St. Louis) 4 45
Connellsville Coke, (East St. Lou's)# 4 45 " (St. Louis) 4 60

Chicago Iron Market.

Specially reported by ROGERS, BROWN & Co. W. W. BACKMAN, Resident Agent. CHICAGO Oct 8 1888

Business at this center is, for the present,

confined to purchases for immediate wants. Shipments on contracts are very heavy, and consumption is very large. The field is full of new enterprises, and if no misfortune

overtakes our industrial system, the gene feeling is that we shall see a large action in all lines. Sales of Lake Superior ch coal iron were made since last report at an cash Chicago, but most furnaces are holding at \$20 cash. Most producers of this class of iron have their product sold for the fall and winter, We quote:

	COMM	AND ST	OME CO	AL FOUR	DRI	Per 2	
Ohio (H	anging	Rock)	Softener	s No. 1.	\$18	50 @ 31	-
Br	ackbas	ad .	**	**	28	1000	ŧ.
" Ja	ckson	county	64	66	18		•
21 La	ke ore	county and cin	dag **	98	19		73
Souther							
86	66	No. 3	4	******	*7	200019	-
65		270. 37		*****	*7	000017	31
		No. 3	*****	*******	10	50027	-
		OLD	MATERI	AL.			
Old Iron	Rails				24	ac@n	-
Old Car	Wheel	s			30		
		CWARCO	AL FOU	MDRY	-3		
Lake Su	nerios						級
Court ou	pen roe		*******	****	19	2 miles	-
Southern	D	*******		*** ***	19	5000 21	-
Hanging	ROCE				11	90@E3	-
	CAR	WHEEL	AND M.	ALLEADI			100
Lake Su	perior.				19	50@as	-
Standard	South	APR.			-	market at	-
Hanging							
0.6	44	warm	blagt		**	-	
						Same	-

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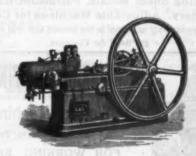
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	American. B greis fig. in No. 4, Frunch. B doz fa. sg. id. sg. 5 No. 5, Iron Handle B greas St. o., die 42 if Berdins Scianors G doz fy. o., die 55 Sprague, No. 1, fe ; No. 2, a. 25 ; No. 3, a. 30 (die 32 if Universal. B doz fg. o., die 32 if CAPI, PRINCUSSION, U 2, o. 0.
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Crown, 4¼-in., \$3.50; 6, \$4.00; 8, \$6.50 eachdis 35 \$ Crown Jewell	He
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"Resi" & gro. \$12.00 dis as \$ Outs Ports. Timed and Enameled	C.

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Nos 0 1 8 3 4 Per dos \$0.90 1.00 1.18 1.35 1.50 dis 60810 5	
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(Nos. 50, 60, 55 and 65)dis 75&105 \$ Shepard's "Niagara" Gravitydis 75, 10&5 \$	ı
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Shepard s "Noiseless"	ı
Clark's Tip Pattern	١
Standard Lull & Porter	l
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"Providence" Over 18	١
Crown spring hitages, for screen doors, dis 60 %; for for solid doors, single action, dis 45 %; for solid	ı
doors, double action, dis 55 %. Crown Screen Door Latch	ı
dox \$6; 3-inch, \$12	
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IONIN, M doz; No. sh rolls, raxin, fas; No. s Japan fax. so doz;	
\$33.00 dosdis so \$	
14 in. & up, \$6 \$ 100 \$. \$0\$	1
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No. a Galv. Ses.co dos.; No. a % Galv. dis so s 1	
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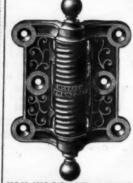
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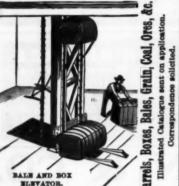
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GEST CIRCULATIONS. ARUSERIA DAPES ISSUING FORMARY HOUSE, ON CODICS.

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THE REST LIST OF LOCAL NEWSPAPERS, COME COUNTY SEEL.

EXECUTION OF LOCAL SEWSPAPERS, IN which devertisements are insert.



Half-Fare Excursions South.

The Queen & Crescent Route (Cincinnati Southern and associate roads) will sell Harvest Excursion Tickets at One Limited Fare the roand trip on September 25. October 9 and 23, 1888. good to return within 30 days, and allowing stop-over privilege. These cheap tickets will be on sale to various points in Tennessee, Alabama, Georgia, Florida, Carolinas, Virginia, Mississippi, Louisiana, Arkansas and Texas, to which States the Queen & Crescent is the great trunk line, running double daily trains from Cincinnati and Louisville. For rates, maps, time-tables or other information desired concerning a trip South via the Queen & Crescent Route, call upon your nearest ticket agent, or address D. G. Edwards, Acting General Passenger Agent, Cincinnati, O. †

Among the Northern Lakes

of Wisconsin, Minnesota, Iowa, Missouri and Dakots are hundreds of delightful places where one can pass the summer months in quiet rest and enjoyment, and return home at the end of the heated term completely rejuvenated. Each recurring season brings to Oconomowoc, Wau-kesha, Beaver Dam, Frontenac, Okoboji, Hotel St. Louis, Lake Minnetonka, White Bear, Excelsior Springs, and innumerable other charm-ing localities with romantic names, thousands of our best people whose winter homes are on either side of Mason and Dixon's line. Elegance and comfort at a moderate cost can be games and comfort at a moderate cost can be readily obtained. A list of summer homes with all necessary information pertaining thereto is being distributed by the CHICAGO, MILWAUKEE & ST. PAUL RAILWAY, and will be sent free upon application by letter to A. V. H. Carpenter, General Passenger Agent, Mil-waukee, Wis.

GHEAP FARMING LANDS SOUTH

It is a recognized fact that the cheapest farming lands in America to-day are in the South, and men of much or moderate means looking for real estate investments, or permanent homes, should not fail to visit the following points, where so many northern people are now settling, viz: Jackson, Tennessee; Aberdeen and Jackson, Mississippi; Hammond, Crowley, Jennings, Welsh and Lake Charles, Louisiana. Round-trip tourist tickets, limited to June 1st, 1388, with stop over privileges south of Cairo, Illinois, are on sale to New Orleans, Jennings and Lake Charles. For rates apply to nearest ticket agent, and be sure your tickets read via the Illinois Central Railroad from Chicago or St. Louis. For pamphlet entitled "Southern Home-Seeker's Guide," and circulars concerning the above named points, culars concerning the above named points, address the undersigned, at Manchester,

J. F. MERRY. Gen. West. Pass. Agt.

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All the Comforts and Luxuries of a First Class Hotel are afforded the Traveler. Spacious and Riegant Salcons and Statercoms, furnished with an especial view to comfor? Unsurpassed Cuisine, which is made a specialty with this Line. Riegant service and courteous attention Steamers leave Baltimore daily except Sundays

Line. Riegant service states and a state of the Splanning at 9 P. M.
At Old Point Comfort is located the SPLENDID HYGEIA HOTEL, a Delightful Resort at all Seasons of the Year. For Tickets and Information, apply at Company's office,

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E. BROWN, General Ticket Agent.

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The saving advantages in utilizing exhaust steam from engines, pumpe, &c., is rapidly becoming understood by steam users. The oil and grease, however, which is carried with it renders the steam and the water condensed therefrom unfit for use To obtain an exhaust steam free from oil and grease the Hine eliminator is put upon the market, its entire efficiency and relia bility having been thoroughly demon atrated

By referring to the accompanying draw ings (showing sectional views) the special



features of the invention will be noticed. Being set into the exhaust pipe (flange connections) from the engine or pump, as convenience will allow, it will be seen that the exhaust steam upon entering the eliminator instantly expands, and impinging the corrugated and otherwise roughened surfaces, breaks up, the entrained oil, grease and dirty water being expelled adhere to the inner roughened surfaces and gravitate to the bottom of receiving chamber and are discharged through the drain valve, while the clean dry steam, deflecting from the face of the depending partition, is driven first down, then upward in continuous contact with the roughened corrugated surfaces in its course. Being attached to the live steam pipe it will separate the water,



giving at all times dry steam to engine or pump. For this purpose the vertical con-nection is especially adapted, as it can be set close down to the engine, and operates equally well whether the steam is admitted at bottom or top. We are authorized by the manufacturers, Messrs. Hine & Robertson, 45 Cortlandt street, New York, to state that they guarantee this apparatus to do all they claim for it, and to responsible parties they will send it on trial with the understanding that if it fails to give entire satisfaction in its appli-

cation to either exhaust or live steam, it

can be returned to them and they will pay

cost of transportation both ways.

The Fairy Tricycle.

The accompanying cut represents the general appearance of the new Fairy tricycle, specially adapted for both ladies and girls, and which possesses many advan-The leverage is so applied that both levers cannot be on a "dead center" at the same time, and each treadle communicates power for more than one half of

limbs It has been used with great success in cases of paralysis, also in cases where persons have lost a large part of the strength in their limbs from wasting diseases and long confinement. The machine on good walks can be run entirely by hand-power, and the feet used as much or little as desired. At any time when desired the band lever attachment can be taken off and the machine used as a regular style machine. The manufacturers are the Fay Manufacturing Co., of Elyria, Ohio.

course this does away with the old sipluy and chain.

The bowl is made either round or out and is also styled the "Perfection."

The smaller cut gives a sectional view of the lavatory, and shows more clearly working of the waste.

Heavy brass brackets are sometimes to support the slab in place of and also make a very pleasing finish.

A fixture somewhat similar to this he using a different basin and waste, is also

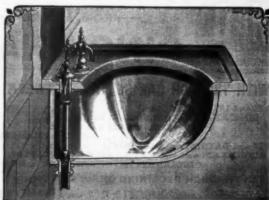


PIG. 1.

the revolution of the crank. The fric-Bath Room Fixtures. tional bearings are reduced to a minimum, The accompanying cuts illustrate a new therefore it is a very easy running machine. The style of the machine is neat, compact, simple, graceful and elegant. It is durable and strong in every part, and has no chains and other devices liable to break or get

and very desirable fixture for the modern bath room, manufactured by Haines, Jones & Cadbury, Philadelphia. This method of supporting a marble slab and wash basin upon brass legs combines both the qualities of attractiveness and utility. All parts of the lavatory can be readily cleaned, and

made by Haines, Jones & Cadbury. It is called the "Newell," and has a small combination supply cock projecting into the basin near the top. The waste, with operated the same as in the "Perfection," is back of the basin and out of sight. The combination cock is connected to the basin add cold water pipes, and water can be admitted into the basin at any desired temperature. The cock is operated by handles coming up through the slab a each side of the waste knob, leaving the



THE FAIRY TRICYCLE

out of order. The axle is of steel, the

and it is finely upholstered. The power applied by the rider is the combination of the weight and push motion, which is said to be the easiest, most natural, most grace-

eels are of the most approved pattern,

ful, and only motion which does not injure the health of the rider.

The motion is pleasant, healthful and invigorating, developing all the muscles without excessive strain or injurious effect. The position allows the clothing to be kept in place without there being anything to catch, tear or soil it. The machine has a flexible handle, which is a great convenience in getting on or off or in drawing the machine. It can be used any time, and especially in stormy weather it protects the clothes and feet from the wet in taking out-door exercise. It is a good hill climber, and perfectly safe to descend any hill.

The same company makes a Fairy tricycle for invalids who have partial or no use of their feet; those who are paralyzed or from any cause desire to exercise their

the necessity of bulky wood-work under

slab free from the usual basin cocks sichain stay.

A new catalogue containing cuts of both the above lavatories, together with mark other sanitary plumbing appliances, is been recently issued, and will be found be of great value to the plumber architect. Parties desiring copies of its same will be supplied by writing to so office of the firm, 1136 Ridge arms. the slab is done away with, leaving a light, airy and ornamental stand. The construction of the bowl is rather unique, having a recess in the back which contains the combination plug and overflow. This device is styled the "Perfection" waste, and is operated by the hexagonal knob on the top of the slab. Of

and give to the ENGINE and MACHINERY throughout the mill a more uniform speed with a KELLAM DAMPER REGULATOR. Over 10,000 in use. CONTROL the steam in your HEATING system with a STANDARD REGULATING VALVE. EXTRAOT the OIL EXHAUST and prevent the boiler from priming and being pitted by L with an ELIMINATOR. PACK your ENGINE and PUMP with KA PACKING. Get circulars.

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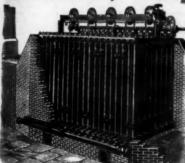
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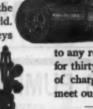


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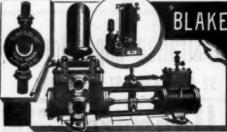


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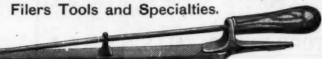
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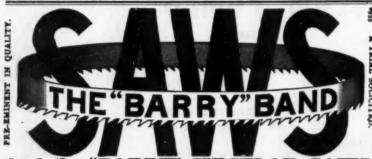
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